

27th Annual Series.

1st Edition 15,000.

18



62.

JAMES CARTER AND CO.'S  
GARDENER'S AND FARMER'S  
VADE-MECUM.

JAMES CARTER & Co.,

Fellows of the Royal Horticultural Society of London and the Royal Agricultural  
Society of England, &c.,

SEED MERCHANTS AND NURSERYMEN.

Offices and Seed Warehouses,

237, 238, & 261, HIGH HOLBORN, LONDON, W.C.

Nursery.

CRYSTAL PALACE NURSERY,  
FOREST HILL, SYDENHAM, S.

Seed Farms.

EAST HOUSE FARM, DEDHAM, ESSEX,  
& THE SEED FARM, St. OSYTH, ESSEX.

*\*\* It is particularly requested that all letters be addressed to the Holborn Establishment  
to avoid delay.*

A SUPPLEMENT,

IN THE FORM OF A COMPLETE LIST OF BEDDING AND OTHER PLANTS, WILL BE PUBLISHED  
ON THE 1ST OF MAY, AND WILL BE FORWARDED FREE OF CHARGE, AND POST PAID,  
ON APPLICATION.

THE AUTUMN SUPPLEMENT OF DUTCH AND CAPE BULBS WILL BE PUBLISHED AS USUAL.

POST-OFFICE ORDERS TO BE MADE PAYABLE AT THE "HOLBORN OFFICE."

CHEQUES TO BE CROSSED "LONDON AND WESTMINSTER BANK."

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Gift of  
Earl Blough  
November 1957

## ADDRESS TO OUR CORRESPONDENTS.

We have much pleasure in submitting to your notice the *Twenty-seventh Annual Issue* of our **GARDENER'S and FARMER'S VADE-MECUM**, which we feel assured, upon examination, will be found to far surpass any existing work of a similar description: we have spared neither time, trouble, nor expense in its compilation; and as the cost of the present far exceeds that of previous issues, and as we cannot be expected to furnish the majority of the *Gardening World* with a useful book of reference, free of charge and post paid, we have decided to affix the price of One Shilling to the present edition in self-protection: we have observed in past years that many persons have applied for the *Vade-Mecum*, and when obtained, have refrained from purchasing; however, as heretofore, *all our Customers will receive a copy gratis*.

Under the Column headed "**GENERAL OBSERVATIONS**," we have endeavoured to give as complete a description of the best soils for, mode of culture, &c. &c., of *nearly 3000 Species and Varieties of Flower Seeds* as the limited space will permit. We wish to draw special attention to the "**CALENDAR OF GARDEN OPERATIONS**" (commencing at page 73), which we think will be found an unrivalled production of its kind. We have also appended a **COMPREHENSIVE ORIGINAL AND PRACTICAL GUIDE FOR FARM OPERATIONS OF EVERY DESCRIPTION** (commencing at page 95), which we doubt not will prove a valuable assistance to the Amateur and Professional Farmer and the Agricultural Emigrant. The entire work has been re-written, and the greatest care taken to eliminate errors; but should any accidentally have crept in, we shall esteem it a favour to be informed of it. All the information is entirely original and practical, and we trust will prove of essential service alike to the Professional as to the Amateur Gardener.

Such of the Seeds as ripen well in England have been grown at our own Farms (*vide page 120*; and to obtain those which require a warmer climate to perfect their ripening, our senior Partner has travelled nearly the whole of Europe, and has personally inspected the growing crops of all the principal Floriculturists in Italy, France, Switzerland, Germany, &c. &c.; and as we purchase only from the original producers, we are enabled to recommend our Seeds with greater confidence than it is in the power of any other Firm to do. The Miscellaneous List of Flower Seeds will be found to contain all the best varieties in cultivation, all deserving Novelties, and many choice and rare Seeds, which we have received from our various Correspondents in the East and West Indies, America, Australia, British Columbia, &c. &c.

**DIVISIONS OF COLOURED PAPER.**—Many of our Correspondents having intimated to us that, in consequence of the yearly increasing size of the **VADE-MECUM**, it became a matter of some little difficulty to refer to the articles in the body of the work, we have printed the whole of the **VEGETABLE and AGRICULTURAL DEPARTMENT** upon **DARK-COLOURED PAPER**, and the **NOTICES OF NEW FLOWERS, ILLUSTRATIONS, &c.** upon **LIGHT-COLOURED PAPER**, by means of which easy reference is at once obtained; and we trust that this alteration will prove of service our many Correspondents.

**QUALITY OF THE SEEDS.**—We have much pleasure in stating that the quality of Seeds is unusually good this season, as the late harvest has been one of the best known for many seasons; and it is scarcely necessary for us to advert to our invariable practice of sending out *genuine Seeds only*.

"**CARTER'S FLORAL ILLUSTRATIONS**" are a series of truthful drawings of the Floral Novelties of the day, respecting which further particulars will be found at *page 119*.

**SEEDS FOR EXPORTATION.**—We beg leave to say that, being large Exporters to all parts of the world, we are in a position to make selections suited to any climate, and will pack them in such a manner as to ensure a safe transit: and all orders that we may receive we will take care to despatch at the proper season.

"**PARMENTER'S PREPARATION FOR THE DESTRUCTION OF INSECTS.**"—This Preparation has been found to act with the most unerring certainty; and we can confidently recommend it as the best destroyer of Insects on plants ever offered to public notice (*for particulars see page 112*).

"**SPERGULA PILIFERA.**"—This charming substitute for Grass for Lawns is increasing in reputation, and we are enabled to offer it at a very reasonable figure (*vide page 118*).

"**BEDDING, GREENHOUSE, AND STOVE PLANTS.**"—A complete List of Bedding and other Plants grown at our Sydenham Nursery will be published on the 1st of May, and forwarded free of charge, on application.

In conclusion, we beg leave respectfully to prefer a few requests. *First*, that with each Order the full name and address be given, that we may be enabled to keep our accounts as correctly as possible; *Secondly*, that with each remittance our Invoice or Statement be returned; *Thirdly*, that no Post-Office Order be sent without a name, as the Post-Office Authorities forbid their officers from informing the Payee of the name of the Remitter; and *Fourthly*, we earnestly request that no *Money in Coin* be sent through the Post, as, besides risking the loss of the money, it offers temptation to the Post-Office Servants.

We wish also respectfully to intimate that, except in case of urgency, all orders will be executed in rotation as received; and having considerably enlarged our Premises, and increased our Staff of Assistants, *no unnecessary delay will take place*: but we would strongly advise that orders be sent early. In returning our sincere thanks for past favours, we solicit a continuance of the same, with your kind recommendations.

We have the honour to be,

Nos. 237, 238, and 261, High Holborn, London,  
January 1862

Your very obedient Servants,

JAMES CARTER AND CO.

# PART I.

## KEY TO THE COLUMNAR SYSTEM OF ARRANGEMENT.

### 1st Column.—THE LINNEAN CLASSES.

The Linnean Classes are founded on the Sexual Organs.

Classes.		a. <i>Stamens (male organs) equal.</i>		c. <i>Stamens united in sets.</i>	
		No. 1. Monan'dria .	1 <i>stamen</i>	No. 16. Monadelphia, 1 <i>set</i>	
		2. Diandria .	2 <i>stamens</i>	17. Diadelphia, 2 <i>sets</i>	
		3. Triandria .	3 "	18. Polyadelphia, many <i>sets</i>	
		4. Tetrandria .	4 "	d. <i>Compound Flowers (Asters, &amp;c.).</i>	
		5. Pentandria .	5 "	19. Syngenesia	
		6. Hexandria .	6 "	e. <i>Stamens on the style.</i>	
		7. Heptandria .	7 "	20. Gynandria	
		8. Octandria .	8 "	f. <i>Male and female separated.</i>	
		9. Enneandria .	9 "	21. Monœ'cia, on one <i>plant</i>	
		10. Decandria .	10 "	22. Diœ'cia, on different <i>plants</i>	
		11. Dodecandria 12 to 19 S. in the cup		g. <i>Male, female, and hermaphrodite Flowers on one or different plants.</i>	
		12. Icosandria 20 or more S. on the base		23. Polygamia, many <i>marriages</i>	
		13. Polyandria, many <i>Stamens</i>		h. <i>Flowers wanting, or incomplete.</i>	
		b. <i>Stamens unequal.</i>		24. Cryptogamia, hidden <i>marriages</i> (Ferns, Mosses, &c.).	
		14. Didynamia, 2 <i>long</i> , 2 <i>short</i>			
		15. Tetradyndamia, 4 " 2 "			

### 2nd Column.—THE LINNEAN ORDERS.

The Linnean Orders are founded on the Sexual Organs, Seeds, Pods, or Fronds.

Orders.		a. <i>Orders founded on the Styles, or female organs.</i>		d. <i>Styles and stamens united.</i>	
		No. 25. Monogynia .	1 <i>style</i>	No. 50. Gynandria, male and female	
		26. Digynia .	2 <i>styles</i>	e. <i>Male and female separate.</i>	
		27. Di-pentagynia 2 to 5 "		51. Monœ'cia, on one <i>plant</i>	
		28. Trigynia .	3 "	52. Diœ'cia, on different <i>plants</i>	
		29. Tetragynia .	4 "	f. <i>On the Polygamy.</i>	
		30. Pentagynia .	5 "	53. { Polygamia æqualis, or	
		31. Hexagynia .	6 "	Equal Polygamy	
		32. Heptagynia .	7 "	54. { Polygamia superflua	
		33. Decagynia .	10 "	Superfluous Polygamy	
		34. Dodecagynia .	12 "	55. { Polygamia frustranea	
		35. Polygynia many "		Frustrated Polygamy	
		b. <i>On the Stamens (male organs).</i>		56. { Polygamia necessaria	
		36. Monan'dria .	1 <i>stamen</i>	Necessary Polygamy	
		37. Diandria .	2 <i>stamens</i>	57. { Polygamia segregata	
		38. Triandria .	3 "	Separated Polygamy	
		39. Tetrandria .	4 "	g. <i>On the Seeds.</i>	
		40. Pentandria .	5 "	58. { Gymnosper'mia	
		41. Hexandria .	6 "	Naked seeds	
		42. Heptandria .	7 "	59. Angiosper'mia, in a capsule	
		43. Octandria .	8 "	h. <i>On the Pods.</i>	
		44. Enneandria .	9 "	60. Siliculōsa, a small pod	
		45. Decandria .	10 "	61. Siliquōsa, a long pod	
		46. Dodecandria .	12 "	i. <i>On the Fronds, &amp;c.</i>	
		47. Icosandria .	20 "	62. Filices, Ferns.	
		48. Polyandria many "			
		c. <i>On the sets of Stamens.</i>			
		49. Monadelphia, 1 <i>set</i>			

### 3rd Column.—THE NATURAL ORDERS.

The *Natural Orders* are founded on *Structural Affinities*; and the plan of numerical reference adopted in the present work will prove of essential service to the Amateur in forming, by comparison, an opinion of any plant in this Catalogue which may be unknown to him: for instance, *Anagallis*, *Cyclamen*, *Dodecatheon*, *Primula sinensis*, and *Auricula* belong to the same *Natural Order*, "*Primulaceæ*," No. 160; consequently, should *Dodecatheon* be unknown, the knowledge of one or more of the others would greatly assist in forming an opinion of it. In making comparisons, however, the *height* of the plant should be considered: for example, the *Aster* and *Daisy* belong to the same *Natural Order*, "*Compositæ*," No. 98; and at first sight there does not appear much resemblance between them, there being so much difference in the size of the flowers and the height of the plants.

[3rd Column continued in next page.]



63. Acanthaceæ	55. Cistaceæ	127. Illecebraceæ	159. Portulacaceæ
64. Amaranthaceæ	96. Cobaceæ	128. Iridaceæ	160. Primulaceæ
65. Amyridaceæ	97. Commelinaceæ	129. Jasmineæ	161. Proteaceæ
66. Amentaceæ	98. Compositæ	130. Labiata	162. Ranunculaceæ
67. Ampelideæ	99. Conifereæ	131. Laurineæ	163. Resacideæ
68. Annonaceæ	100. Convolvulaceæ	132. Leguminosæ	164. Rhamnaceæ
69. Apocynaceæ	101. Cordiaceæ	133. Liliaceæ	165. Rhodoraceæ
70. Araliaceæ	102. Coriariæ	134. Limnætheæ	166. Rosaceæ
71. Aristolochiaceæ	103. Crucifereæ	135. Lonsereæ	167. Rubiaceæ
72. Aroidæ	104. Cucurbitaceæ	136. Magnoliaceæ	168. Rutaceæ
73. Asclepiadæ	105. Cyceadæ	137. Malvaceæ	169. Salicariæ
74. Asphodelaceæ	106. Cyrtandraceæ	138. Melastomaceæ	170. Sanguisorbaceæ
75. Aurantiaceæ	107. Dipsacæ	139. Meliaceæ	171. Santalaceæ
76. Balsaminæ	108. Ebenaceæ	140. Musicæ	172. Sapiadaceæ
77. Begoniaceæ	109. Epacridæ	141. Myoporineæ	173. Saxifragæ
78. Berberideæ	110. Ericæ	142. Myrtaceæ	174. Scitamineæ
79. Bignoniaceæ	111. Escalloniaceæ	143. Nysagraceæ	175. Scrophulariaceæ
80. Bixineæ	112. Euphorbiaceæ	144. Nymphaeaceæ	176. Sempervivæ
81. Boraginæ	113. Ficolideæ	145. Oleaceæ	177. Smilacæ
82. Bromeliaceæ	114. Filices	146. Onagrariceæ	178. Solanaceæ
83. Byttneriaceæ	115. Frankeniaceæ	147. Oxalideæ	179. Terebinthaceæ
84. Cacti	116. Fumariaceæ	148. Pahnacæ	180. Thymelacæ
85. Calycanthaceæ	117. Galaciniaceæ	149. Papaveraceæ	181. Tiliaceæ
86. Camelliæ	118. Gentianeæ	150. Passifloræ	182. Tropacoleæ
87. Campanulaceæ	119. Geraniaceæ	151. Pedaliaceæ	183. Tulipaceæ
88. Cannæ	120. Gesneriaceæ	152. Pittosporaceæ	184. Umbellifereæ
89. Capparidæ	121. Globularineæ	153. Plumbaginæ	185. Urticæ
90. Caprifoliaceæ	122. Goodenovicæ	154. Polemoniaceæ	186. Valerianaceæ
91. Caryophyllæ	123. Graminæ	155. Polygalæ	187. Verbenaceæ
92. Casuarineæ	124. Grossulacæ	156. Polygonæ	188. Violariæ
93. Cedreleæ	125. Hemerocallidæ	157. Poniaceæ	189. Zygophyllæ
94. Chenopodæ	126. Hydrocharidæ	158. Pontederacæ	190. Bombacæ
191. Combretaceæ		192. Malpighiaceæ	193. Styracineæ

### and Duration.

A. Annual—*last one year.*  
B. Biennial—*last two years.*  
P. herbaceous Perennial—*last three or more.*  
S. Shrub, or under-shrub.  
Pb. Perennial bulb, corm, or tuber.  
T. Tree.

Application: hA. *hardy Annual*; hB. *hardy Biennial*; hP. *hardy herbaceous Perennial*; hS. *hardy Shrub*; hPh. *hardy bulbous Perennial*; hT. *hardy Tree*; hA. *half-hardy Annual*; hB. *half-hardy Biennial*, &c. &c.; tA. *tender Annual*, &c.; fA. *fringe Annual*, &c.; gA. *greenhouse Annual*, &c. sA. *store Annual*; sB. *store Biennial*; sP. *store Perennial*; sS. *store Shrub*; sPh. *store bulbous Perennial*.

6th Column.—Colour of the flower. The following are the principal abbreviations:

a. ash-grey.	cr. crimson.	o. orange.	sl. slate.
ap. apetulous.	d. dark.	ptd. painted.	spot. spotted.
az. azure.	div. diverse.	p. purple.	stra. straw.
b. blue.	flsh. flesh.	ph. peach.	stri. striped.
bk. black.	gn. green.	pk. pink.	sul. sulphur.
bl. bluish.	gy. grey.	r. red.	v. violet.
br. brown.	l. light.	ro. rose.	va. variegated.
bff. buff.	lem. lemon.	saf. saffron.	w. white.
car. carmine.	li. lilac.	s. scarlet.	y. yellow.
cin. cinnamon.	mul. mulberry.	sil. silver.	yl. yellowish.

Example: d. b. dark blue; h. w. & y. blue, white and yellow; l. r. light red; ro. li. rosy lilac, &c. &c.

7th Column.—Usual height of the plant in feet; trai. trailer.

8th Column.—Usual month of flowering: 1, January; 2, February; 3, March, &c.; 3-5, March to May, &c. &c.

9th Column.—Price per Packet. No smaller packets can be made than those marked in the Catalogue.

**TIME OF SOWING.**—*Hardy Annuals*, February till June, and in Autumn; when sown early, many of the *Annuals* flower in May. *Hardy Biennials* and *Perennials*, March till June, and in Autumn. *Half-hardy Annuals*, &c. in February till May, on a moderate hot-bed. Many of the *Biennials* and *Perennials* marked bh frequently stand the winter without protection. The *half-hardy Annuals* may also be sown on a warm border early in May. The *tender Annuals*, as *Balsams*, &c., require a moderate hot-bed and re-potting to bring them to perfection. See also Calendar of Operations, page 73.

The Greenhouse Climbers marked \*\* may be planted in the borders in May.

\* Dwarf Plants proper for the edgings of beds. \*\* Ornamental Climbers.

† Usually flower the first year, if sown early.

sp. species; var. varietas; pl. pluria, many; ex, from.—lf. leaf; fr. fruit.

The dots | ... | ... | ... | ... | indicate a repetition.



# GERMAN FLOWER SEEDS

IN CHOICE ASSORTMENTS.

*The Seeds are warranted to be of first-rate quality.*

## Chinese or German Aster.

**CULTURE.**—Sow in the middle of March or the beginning of April (according to the season) in cold frame, or in pans in the Greenhouse in a good rich compost: the seed should not be sown too thickly, as the plants require much space to make growth: keep the lights on until the seed germinates, and, if necessary, shade. As the plants increase in size, more air may be given, until they become strong enough to bear the lights off altogether in the daytime in favourable weather. Transplant when the plants are strong enough, say about the middle or end of May; earth up round each plant from time to time, as the roots have a tendency to work their way out of the ground; water frequently with liquid manure, care being taken not to have it too strong.

## Quilled Aster.

These are very double, of oval form; the petals have the appearance of quills or tubes; the outer ring is sometimes slightly reflexed, so as to form a sort of guard petal; height from  $1\frac{1}{2}$  to 2 feet; habit branching, with a profusion of blossoms: useful for groups in Shrubberies, and for the borders in the Flower Garden.

No. 1.	12	extra fine varieties Quilled German Aster, separate	3	d.
2.	12	do. do. do. do. smaller packets	1	6

## Globe-flowered Aster.

These are mostly quilled, and resemble the above, excepting that the flowers are larger and gradually raised towards the centre, so as to form a half-ball. This is the sort usually grown for Exhibition purposes where quilled Asters are required.

No. 3.	12	splendid varieties new Globe German Aster, separate	3	0
4.	12	do. do. do. do. smaller packets	1	6

## Pyramidal Aster.

The beautiful large flowers appear on this Aster nearly of one height, with few side flowers; has most probably received its name from its resemblance to an inverted pyramid; some blossoms are quilled; height from  $2\frac{1}{2}$  to 3 feet.

No. 5.	12	very fine varieties Pyramidal German Aster, separate	3	0
6.	12	do. do. do. do. smaller packets	1	6

## French Varieties of Aster.

These are universal favourites, very useful as pot plants in Greenhouse or Conservatory, for bedding purposes, or for Exhibition: we annually receive letters from Correspondents in various parts of the country, stating that they have taken prizes with them at their respective local Floricultural Exhibitions. A very effective bed or riband may be formed by planting two or three rows of Gladiolus, "French seedlings from gandavensis" (see page 52), in April, as a background or centre, as the case may be; next to which, several rows of transplanted plants of French Asters, raised from seed of Nos. 7, 8, 9, or 10; and for an edging, plants of the dwarf varieties Nos. 11 or 12: this will form a very lasting and showy bed for the Autumn. The same ground may be rendered gay in the Spring and Summer by making early sowings of such quick-growing Annuals as Nemophilas, Collinsias, Lep-tosiphons, &c. &c.; if this plan be adopted, the Asters may be left on the seed-bed and transplanted in July; care being taken to lift a ball of earth with each plant, and to water well when planted. Nos. 7, 8, 9 & 10 contain proportions of the following varieties, arranged in distinct colours:—*Fleur Perfection*. The blossoms of this kind are very large: petals very long, and but slightly reflexed. *Fleur Bombée*. The flowers of this variety are very large and full, and form almost a semi-ball. *Fleur Chrysanthème*. The flowers of this variety are not so large as the preceding: the petals are entirely reflexed: produce more side blossoms than the other varieties. *Fleur Pivoine*. The Paeony-flowered Asters turn their petals towards the centre, and a flower not quite in full bloom resembles a ball. *Fleur Imbriquée*. The petals of these form themselves exactly like tiles, one on the top of the other to the centre of the flower. Nos. 11 and 12 contain proportions of the following varieties, arranged in distinct colours—*Chrysanthème* and *Imbriquée*; the flowers are similar to the preceding varieties, but the plants are only half the height.

No. 7.	24	superb varieties French Aster, separate	10	0
8.	24	do. do. do. smaller packets	5	0
9.	12	do. do. do. do.	5	0
10.	12	do. do. do. do. smaller packets	2	6
11.	8	do. dwarf do. do.	5	0
12.	8	do. do. do. do. smaller packets	2	6

## Bouquet Aster.

This plant deserves its name, for each plant is so voluptuously covered with bloom that the green of its foliage is scarcely visible: almost every plant forms itself into a perfect bouquet: height from  $\frac{3}{4}$  to  $1\frac{1}{4}$  foot: highly ornamental in pots.

No. 13.	12	beautiful varieties new Bouquet Asters, separate	5	0
14.	12	do. do. do. do. smaller packets	2	6

## Dwarf Aster.

These are from 8 to 12 inches in height, very free-flowering, useful for edgings and pots.

No. 15.	16	beautiful varieties new Dwarf Aster, separate	2	0
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## GERMAN FLOWER SEEDS (*continued*).

### New Crown or Cockade Aster.

These are quilled Asters with two colours on each flower—the centres being white, with a broad margin of some dark colour around it: presenting the appearance of a cockade: they can be recommended as being very useful for bouquets. s. d.  
2 0

No. 16. 4 *showy varieties new Crown Asters, separate* ..... 2 0

### New Giant, or Emperor Aster.

This variety has sprung from the Pyramidal Aster, and for size and shape is unsurpassed. It bears only a few flowers on a robust, strong stem, from which the side-sprouts grow in the form of a candelabrum. In favourable cases it produces five flowers, of which the chief blossom is four inches in diameter. Notwithstanding its size, all its flowers are of an equal height.

No. 17. 3 *splendid varieties Emperor Aster, separate* ..... 2 6

### Large Collections of Asters.

No. 18.	93 <i>varieties of Aster, comprising</i>	Nos. 1, 3, 5, 7, 11, 13, 15, 16, and 17	33 0
19.	72 <i>do. do. do.</i>	" 2, 4, 6, 8, and 12	11 6
20.	48 <i>do. do. do.</i>	" 2, 4, 6, and 10	6 6

### Ten-week or German Stocks.

Sow in the early part of March in pans near the glass, or in a frame filled with vegetable loam mixed with one-sixth of river sand to within 4 inches of the lights, so that the young plants may be as near the glass as possible and not drawn up weakly; level the soil nicely, and slightly sprinkle with water; then scatter the seeds evenly, about four to the square inch, giving another slight sprinkling of water; then cover the seeds with about  $\frac{1}{4}$  inch of the same compost finely sifted. Keep the lights closed for a few days and shaded from the sun, gradually giving air as the plants progress until the end of April, when they may be transplanted to pots or groups in the open borders. Stocks may be transplanted several times with advantage in the earlier stages of growth, the shift tending to give them a more dwarf and compact habit.

Last Spring we supplied a Collection of each of our Imported German Stocks to the Royal Horticultural Society of London, for trial in their Gardens; a report of the results will be found in the "NOVEMBER 1860" Number of the Society's Proceedings, and we think that their account of the Seeds we supplied from our general stock will prove gratifying to our readers:—EXTRACT FROM THE SOCIETY'S REPORT.—"Notwithstanding the unfavourable season, a very good bloom was obtained. It was found, however, that so little fixedness of nomenclature or even of classification had been hitherto attained, that a detailed report would have been altogether useless, and the Committee came to the conclusion that its attention might be most usefully directed towards making an effort to remedy the evils just referred to; by endeavouring to group the various forms into definite sections. The groups which have been adopted may, it is hoped, be approved and employed by English growers. The seeds were in this case sown on April 9th, in frames. The plants were 'pricked out' and hardened off in the usual way, and were finally planted out for flowering on a prepared south border. They were examined and reported on during the first and second weeks of August, while in the height of their bloom." The classification proposed for the various kinds of annual Stocks, which were the only ones brought under the notice of the Committee, is as follows:—

[As far as the Season would permit, we have included in each assortment the varieties recommended by the Royal Horticultural Society.]

### Ten-week or German Stocks.

In this group the plants grow about a foot in height; the habit is dwarf, compact, and branching below, and the inflorescence consists of a longer central spike and shorter lateral ones. The choicer kinds in the collection falling under this head belong to two subdivisions, one of which has been called "large-flowered," in contra-distinction to those in which the blossoms are of the usual or average size.

#### FLOWERS OF USUAL OR AVERAGE SIZE.

No. 21.	26 <i>beautiful varieties Dwarf German Stock, separate</i>		7 0
22.	26 <i>do. do. do.</i>	<i>smaller packets</i>	3 6
23.	16 <i>selected varieties do. do.</i>		5 0
24.	16 <i>do. do. do.</i>	<i>smaller packets</i>	2 6

#### FLOWERS ABOVE THE AVERAGE SIZE.

No. 25.	6 <i>superb varieties Large-flowered German Stock, separate</i>		2 6
26.	6 <i>do. do. do. do.</i>	<i>smaller packets</i>	1 6

### Dwarf or Miniature Ten-week.

This group has the habit and characteristics of the Dwarf German, but the plants are dwarfer, averaging about 9 inches in height, and they are also more branched. The variety sent as Dwarf Crimson was considered to be one of the finest and most useful varieties in the whole collection. This class of Stocks will be found very useful for pot-culture. The best varieties were—

**GERMAN FLOWER SEEDS (continued).****Dwarf or Miniature Ten-week Stocks (continued).**

No. 27.	6	splendid varieties	Miniature German Stocks, separate	.....	s. d.
28.	6	do.	do.	do.	2 6
				smaller packets	1 6

**Branching or Pyramidal Ten-week.**

The plants in the varieties referred to this section are taller than the Dwarf German; they attain to an average height of a foot and a half, and they are also more diffusely branched. Among the Annual Stocks they are at once distinguishable by their height and more loosely branched appearance. It is to this group that the term "Intermediate," applied to several distinct forms, appears properly to belong. The variety called "White Branching" proved to be remarkably fine—certainly one of the finest in the collection.

No. 29.	12	very fine varieties	Branching German Stock	.....	separate	3 0
30.	12	do.	do.	do.	smaller packets	1 6

**Autumnal Stock.**

No. 31.	12	very fine varieties	Autumnal German Stock	.....	separate	3 0
32.	12	do.	do.	do.	smaller packets	1 6

**Wallflower-leaved Ten-week Stock.**

This group has the characteristics of Dwarf German, but the leaves are glabrous instead of hoary. There is no other material difference.

**BRANCHING WALLFLOWER-LEAVED.**

This group has the character of the Pyramidal or Branching, but with the leaves glabrous as in the Wallflower-leaved.

**SPIKE-FLOWERED WALLFLOWER-LEAVED.**

This has a narrow unbranched or very shortly branched spike-like inflorescence.

No. 33.	12	finest varieties	Wallflower-leaved	German Stock, separate	.....	3 0
34.	12	do.	do.	do.	do. smaller packets	1 6

**Winter or Queen Stock.**

No. 35.	12	extra fine varieties	Winter Stock, separate	.....	3 0
36.	12	do.	do.	do. .... smaller packets	1 6

**Imperial Stocks.**

These Stocks are extremely handsome, tall, robust, branching, Perennial Stocks, and usually bloom several times in the course of the year.

No. 37.	10	splendid varieties	Imperial Stock, separate	.....	5 0
38.	10	do.	do.	do. .... smaller packets	2 6

**New Cape or Giant Stock.**

No. 39.	6	finest varieties	New Cape or Giant Stock, separate	.....	2 6
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**Brompton Stock.**

No. 40.	12	splendid varieties	Brompton Stock, separate	.....	2 6
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**Large Collections of Stocks.**

No. 41.	74	varieties, comprising	Nos. 21, 25, 27, 29, 31 and 33	.....	18 0
42.	40	do.	do.	24, 26, 28 and 30	6 6

**Antirrhinum or Snapdragon.**

Of this long-established and favourite flower we offer a fine collection, and as it is raised very freely from seed, blooms for many months in the year, and exhibits much variety of colour, it is one of the best Perennials adapted for general cultivation.

No. 43.	12	extra fine varieties of newest	Antirrhinum, separate	.....	3 0
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**German Balsams.**

Balsams may be sown from the beginning to the middle of April, in pans, or on a slight hot-bed in a light rich loam and vegetable compost, covering the seed about a  $\frac{1}{2}$  of an inch, keeping the soil moist, but not wet. When the plants have formed the second pair of leaves, they may be transplanted, four round the edge of a 6-inch pot, and gradually hardened off for transplanting out of doors; or they may be planted in a cold pit, 4 inches apart, as near the glass as possible, giving more air as the season advances until June, when they may be turned into the open borders, the warmest situations being the most suitable. If for pot-culture, they must be divided and transplanted into single pots, shifting once or twice into larger pots, picking off the flowers in the earlier stages of their growth to give greater vigour to the plant, and watering freely in dry weather.

**DOUBLE BALSAM.**

1 $\frac{1}{2}$  to 2 ft. high, strong branching habit, profuse bloomer, suitable for Conservatory and general Flower Garden in summer.

No. 44.	12	splendid varieties	Double Balsam, separate	.....	2 6
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**CAMELLIA BALSAM.**

More erect in habit than the Double; flowers the size of the Rose Balsam, and spotted with white like the Camellia "Queen Victoria," and a cut flower might be easily mistaken for a Camellia.

No. 45.	12	newest varieties	Camellia Balsam, separate	.....	3 0
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**ROSE-FLOWERED BALSAM.**

1 $\frac{1}{2}$  to 2 ft. high, with large rose-petaled very double blossoms.

No. 46.	8	beautiful varieties	Rose-flowered Balsam, separate	.....	2 0
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**MINIATURE OR DWARF BALSAM.**

1 to 1 $\frac{1}{2}$  ft. high, similar to the Double, useful for edgings.

No. 47.	12	finest varieties	Miniature or Dwarf Balsam, separate	.....	3 0
48.	8	selected varieties	Double and Camellia Balsam	.....	2 6



**GERMAN FLOWER SEEDS (continued).****PICOTEE AND CARNATION.**

These choice and deliciously scented flowers are constantly rising in repute, and our varied collections are admitted to be unrivalled. s. d.

- No. 49. 50 *splendid varieties of German Picotee and Carnation, 5 seeds of each, separate* ..... 12 0

**COCKSCOMB.**

- No. 50. 12 *superb new varieties of German Cockscomb* ..... 3 6

**HELICHRYSUM OR EVERLASTING FLOWER.**

These flowers, when dried, may be employed for Winter Bouquets and general in-door decoration, for which purposes they are in great demand upon the Continent, also, under the French name of "Immortelles," are much used as souvenirs for the decoration of Mansoleums: sow in heat, and transplant to open borders in May; for winter preservation, cut the flowers when upon the point of opening.

- No. 51. 12 *finest varieties of Helichrysum, separate* ..... 2 6

**ENGLISH HOLLYHOCK.**

- No. 52. 12 *finest prize varieties of English Hollyhock, separate* ..... 5 0

**IPOMÆA OR CONVULVULUS MAJOR.**

- No. 53. 12 *beautiful varieties of Ipomæa or Convolvulus major, separate* ..... 2 6

**LARKSPUR.**

The Larkspur, from its brilliant colours and pretty spiral form, is an admired ornament to the general flower garden: may be grown singly, in clumps or in beds; should be sown in sandy loam: seed saved from selected plants.

- No. 54. 12 *extra fine varieties of Dwarf Rocket Larkspur, separate* ..... 2 6  
 55. 10 *do. Dwarf Stock-flowered Larkspur, separate* ..... 2 6  
 56. 6 *do. Tall do. do.* ..... 1 6  
 57. 6 *do. Branching Larkspur, separate* ..... 1 6

**MARIGOLD.**

- No. 58. 12 *finest selected varieties of German Marigolds, separate* ..... 2 6

**PETUNIA.**

Petunias present great variety of colour and profuseness of bloom, and are sweetly scented, and as bedding plants contrast most effectively with Geraniums, Verbenas, &c. &c., and, during fine seasons, bloom for three or four months successively: succeed best when sown on slight hot-bed and grown in a mixture of loam and leaf mould.

- No. 59. 12 *beautiful varieties of Petunia, separate* ..... 3 6

**PHLOX DRUMMONDII.**

These richly coloured flowers bloom for several months continuously; the Phlox is very compact in habit and altogether one of the best Annuals grown. Sow in well-drained pots in mild hot-bed; prick off in boxes, and when fit, pot separately, and turn out in the middle of May into deep well-stirred soil.

- No. 60. 12 *extra fine varieties of Phlox Drummondii, separate* ..... 3 6

**PERENNIAL PHLOX.**

Handsome hardy Perennial; height from 3 to 4 feet, with large heads of richly coloured blossom.

- No. 61. 12 *finest new varieties of Perennial Phlox, separate* ..... 3 6

**DOUBLE POPPY.**

- No. 62. 12 *superb varieties of Peony Poppy, separate* ..... 2 6

**PORTULACA.**

These plants grow close to the ground; and when in full bloom, the earth appears covered with richly-coloured blossoms; they are of great use for covering sandy banks and rock-work: the addition of lime rubbish and burnt earth is beneficial; scarcely any water is required.

- No. 63. 12 *beautiful varieties of large-flowered Portulaca, separate* ..... 2 6

**SALPIGLOSSIS.**

Autumn-blooming plants, with large blossoms delicately veined and mottled, of a rich velvety appearance; they are well adapted for beds or mixed borders: sow on hot-bed, and transplant into rows in light loamy soil.

- No. 64. 12 *beautiful varieties of newest Salpiglossis, separate* ..... 2 6

**SCABIOUS.**

- No. 65. 10 *splendid varieties of large-flowered Scabious, separate* ..... 2 6

**WALLFLOWER.**

The Wallflower is peculiarly valuable from its early blooming and fragrance; and the great care which has been bestowed upon its culture has produced the most satisfactory results, as the following collections will produce flowers fully equal in form to the finest Double Stocks.

- No. 66. 12 *superb varieties of German Wallflower, separate* ..... 5 0  
 67. 12 *do. do. do. smaller packets* ..... 2 6

**ZINNIA ELEGANS, Single and Double.**

The single Zinnia elegans has long been known as an Annual of great brilliancy of colour and very effective in beds or general mixed borders: we have now for the first time the pleasure of introducing a collection of "6 colours of double-flowered varieties, separate," which during the entire of a fine Autumn will bloom magnificently. We can recommend the Double Zinnia as the finest Annual that has been introduced for many years.

- No. 68. 12 *splendid varieties of Single Zinnia elegans, separate* ..... 3 6  
 69. 6 *do. do. Double do. separate* ..... 5 0

# JAMES CARTER AND CO.'S GARDENER'S VADE-MECUM FOR 1862.

FULL EXPLANATIONS OF THE ABBREVIATIONS AND GENERAL SYSTEM OF ARRANGEMENT  
WILL BE FOUND AT PAGES 1 & 2.

THE ACCENTS.—The only accents employed are the long or open (') and the short or close (').  
The long accent (')—as (à) in mâte, (è) in mète, (i) in mîte, (ò) in môte, (ù) in mûte, and (y') in my'.  
The short accent (')—as (á) in mât, (é) in mét, (í) in díg, (ó) in dóg, and (ý) in phy'sic.

In giving orders it is preferable to mention the numbers without the names; but as the numbers are changed every year, it is absolutely necessary to say that they are taken from Catalogue "1862."

## MISCELLANEOUS FLOWER SEEDS.

A dash (—) indicates a variety. Example: No. 93. "Acacia (dodoniaefolia) nova," or new variety from Acacia dodoniaefolia.				Native Country.		Hardiness and Duration.	Colour of the Flower.	Height in Feet.	Month of Flowering.	Price per Packet.	GENERAL OBSERVATIONS.
Scientific Name.											
No.	Linnean Class.	Linnean Order.	Natural Order.					feet	s. d.		
70	Abelmoschus	giganteus	16 35 137	India		gS	y.	3	6-9	6	Usual greenhouse treatment. Sow in light sandy soil in hot-bed. Charming Verbena-like Annual.
71	Abronia	angusta	18 45 83	E. Indies		sS	p.	10	8-9	1 0	
72	Abronia	umbellata	5 25 143	California		hhA	ro.	7-9	4	1 0	
73	Abutilon	esculentum	16 48 137	Brazils		hhS	...	6	...	1 0	These flowers are extremely beautiful, being richly veined and striped, of a delicate wax-like appearance: they succeed well out of doors in summer, if planted out against a south wall. Sow in hot-bed, grow in peat and loam, and prune back to a few buds every year.
74	floribundum	...	...	...		...	y.	...	...	1 0	
75	hybridum	...	...	hybrid		...	...	...	...	1 0	
76	marmoratum	...	...	...		...	stri.	...	...	1 0	
77	pulchellum	...	...	N. S. Wales		...	w.	8	8-10	1 0	
78	venosum striatum	...	...	Brazils		...	stri.	6	7-9	1 0	
79	var. Beranger	...	...	gar. var.		...	...	...	...	1 0	
80	var. Due de Malakoff	...	...	...		...	...	...	...	1 0	
81	vitifolium	...	...	Brazil		...	li.	...	...	1 0	
82	Acacia	albicans	23 51 132	Mexico		gS	w.	5	3-5	4	
83	acanthocarpa	...	...	N. Spain		sT	pa. r.	10	6-9	1 0	...
84	arábica	...	...	E. Indies		...	w.	20	7-8	6	...
85	argyrophylla	...	...	Swan River		gS	y.	6	4-5	1 0	...
86	arunata	...	...	N. Holland		...	...	...	...	3	...
87	Bartheriana	...	...	...		...	...	...	...	6	...
88	cæsia	...	...	E. Indies		...	...	15	5-6	6	...
89	coccinea	...	...	gar. var.		...	pk.	...	...	1 0	...
90	cultriformis	...	...	N. S. Wales		...	y.	...	4-6	4	...
91	dealbata	...	...	V. D.'s Land		...	...	4	3-6	4	...
92	dodoniaefolia	...	...	N. Holland		...	...	6	4-6	4	This tribe of handsome Shrubs has long been celebrated for its great variety and adaptability for every purpose of garden decoration, either in doors or out of doors. All the Acacias are remarkably fine in foliage, and in this respect are unsurpassed by any other class of Shrubs. A. coccinea, lophantha, and longifolia are the handsomest in foliage: the bloom of coccinea resembles that of arunata in form, but is much larger and of a rich pink colour, and it is one of the finest Acacias grown. A. arunata and grandis being the most compact in habit, are the best adapted for general pot-culture: A. Julibrissin is hardy and elegant, with tassel-like tufts of rosy flowers. Previous to sowing, soak the seeds in water at 120° for six hours; then sow in heat in sandy peat: but when the plants are well established, use mostly loam.
93	— nova	...	...	gar. var.		...	...	...	...	6	
94	Douglasi	...	...	N. Holland		...	...	5	4-7	6	
95	Drummondii	...	...	Swan River		...	...	4	...	1 0	
96	ebúrnea	...	...	E. Indies		...	...	5	...	6	
97	elata	...	...	...		sS	w.	...	5-6	6	
98	excelsa	...	...	...		gS	y.	...	...	1 0	
99	falcata	...	...	N. S. Wales		...	...	6	...	6	
100	farnesiana	...	...	St. Domingo		gT	...	15	6-8	3	
101	ferruginea	...	...	E. Indies		sS	w.	...	4-6	6	
102	grandis	...	...	N. Holland		gS	y.	6	2-5	6	
103	glandulosa	...	...	N. America		...	w.	2	5-7	6	
104	glomerata	...	...	...		...	y.	6	...	6	
105	heteroclyta	...	...	C. G. Hope		gT	o.	15	7-8	6	
106	Houstonii	...	...	Vera Cruz		gS	p.	10	5-7	6	
107	ixiophylla	...	...	Swan River		...	y.	2	...	6	
108	Julibrissin	...	...	Levant		hT	ro.	20	8-9	3	
109	lanuginosa	...	...	N. Holland		gS	y.	6	3-5	6	
110	La Trobei	...	...	India		...	...	...	5-6	6	
111	latifolia	...	...	V. D.'s Land		...	y.	5	3-5	6	
112	leptophylla	...	...	S. America		sT	...	20	...	6	
113	leucocéphala	...	...	...		gS	w.	5	4-6	6	
114	longifolia	...	...	N. S. Wales		...	y.	6	3-5	6	
115	longissima glauca	...	...	...		...	...	4	5-6	6	...
116	lophantha	...	...	N. Holland		...	...	6	5-7	3	...
117	— Neumauni	...	...	gar. var.		...	...	...	...	6	...
118	— speciosa	...	...	...		...	...	...	...	6	...
119	melanoxylon	...	...	V. D.'s Land		...	...	8	4-6	6	...
120	platyptera	...	...	India		...	...	...	...	6	...
121	pulehella	...	...	N. Holland		...	y.	4	4-7	6	...
122	rotundifolia	...	...	...		...	...	6	5-6	6	...
123	Serissa	...	...	E. Indies		gT	w.	20	5-7	6	...
124	Sophoræ	...	...	V. D.'s Land		gS	y.	10	4-6	6	...

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
125 <i>Acacia</i> sp. ex India	23	51	132	India	gS	y.	10	4-6	6	For description and remarks on the cultivation of the various kinds of <i>Acacia</i> , see preceding page.
126 <i>stipulata</i>	...	...	...	...	...	...	4	...	6	
127 <i>tenuifolia</i>	...	...	...	N. S. Wales	...	...	5	4-6	6	
128 <i>xylophyloides</i>	...	...	...	C. Good Hope	...	...	6	5-7	10	
129 <i>Acanthus mollis</i>	14	58	63	Italy	hP	p. & w.	3	7-9	3	Stately herbaceous plants; succeed best in good loam.
130 <i>spinösus</i>	...	...	...	...	...	...	...	...	3	
131 <i>Achillea Eupatorium</i>	19	54	98	Caspian Sea	...	y.	2	7-8	3	Sow in sandy loam.
132 <i>Achillea, mixed</i>	...	59	120	S. America	sPb	div.	div.	div.	10	Usual stove treatment.
133 <i>Achnodontion Bellardii</i>	3	26	123	Spain	hA	ap.	...	6-7	3	Ornamental grass; garden soil.
134 <i>Achras Sapota</i>	5	25	...	S. America	sT	w.	30	5-9	6	Usual stove treatment.
135 <i>Aconitum album</i>	13	28	162	Pyrenees	hP	y.	4	6-7	3	Showy hardy Perennials: grow in any good garden soil; also under trees.
136 <i>lycötönium</i>	...	...	...	Alps	...	...	3	7-8	3	
137 <i>Napellus</i>	...	...	...	Europe	...	b.	4	5-7	3	Everlasting Flowers, very pretty.
138 <i>Acroclinium roseum album</i>	19	54	98	Swan River	hhA	ro.	1	6-10	3	
139 <i>album</i>	...	...	...	gar. var.	...	w.	...	...	3	Same culture as the <i>Cytisus</i> .
140 <i>Adenocarpus telonensis</i>	16	45	132	E. Indies	gS	y. & w.	5	5-8	6	
141 <i>Adenophora coronata</i>	5	25	87	Siberia	hP†	b.	2	5-7	6	Bell-flowered plants; will grow in any good garden soil.
142 <i>savölens</i>	...	...	...	...	...	pa. b.	...	6-8	6	
143 <i>Ægle Marmelos</i>	13	...	75	E. Indies	sS	w.	6	7-8	6	The Bengal Quince: usual stove culture.
144 <i>Ægilops cylindrica</i>	23	...	123	Hungary	hA	ap.	1	6-7	3	The plant from which wheat was produced.
145 <i>Æthionema cordifolium</i>	15	61	103	Levant	...	pa. b.	...	6-7	3	
146 <i>Buxbaumii</i>	...	...	...	...	...	...	...	...	3	Good garden soil.
147 <i>Ageratum cæruleum</i>	19	53	98	W. Indies	hhA	l. b.	1	6-9	3	
148 <i>cælestium nänum</i>	...	...	...	gar. var.	...	...	...	...	4	Well-known bedding plants, of long duration in bloom: the colour of the <i>Ageratum</i> , bluish lilac, forms an admirable contrast with the more brilliant <i>Verbenas</i> and <i>Geraniums</i> . Sow on heat in the early spring; prick out and transplant in May to the beds where they are to bloom: they flourish freely in any good garden soil.
149 <i>Houstonianum</i>	...	...	...	S. America	...	b.	1½	6-9	3	
150 <i>lindsöni</i>	...	...	...	...	...	...	...	...	3	
151 <i>mexicanum</i>	...	...	...	Mexico	...	...	1	...	3	
152 <i>— album</i>	...	...	...	gar. var.	...	w.	...	...	3	
153 <i>— nänum albidiflorum</i>	...	...	...	...	...	...	...	...	6	
154 <i>— rubrum</i>	...	...	...	...	...	r.	1	...	6	
155 <i>— nänum cæruleum</i>	...	...	...	...	...	b.	...	...	3	
156 <i>odoratum</i>	...	...	...	Mexico	...	...	...	...	6	
157 <i>Agrostis dulcis</i>	3	26	123	Greece	hA	ap.	1	6-8	4	
158 <i>elegans</i>	...	...	...	Europe	...	...	...	...	4	The <i>Agrostis</i> rank high among the Ornamental Grasses from their delicate and graceful growth, and are very useful for Winter or Summer Bouquets. <i>A. nebulosa</i> is a new species, and is extremely graceful. The <i>Agrostis</i> will grow in any good garden soil.
159 <i>laxiflora</i>	...	...	...	N. America	...	...	...	...	4	
160 <i>nebulosa</i>	...	...	...	Europe	...	...	...	...	4	
161 <i>pulchella</i>	...	...	...	Russia	...	...	...	...	4	
162 <i>plumösa</i>	...	...	...	Europe	...	...	...	...	4	
163 <i>retrofracta</i>	...	...	...	N. Holland	...	...	...	...	4	
164 <i>verticillata</i>	...	...	...	S. Europe	...	...	...	...	4	Leaves admirably adapted for Silkworms.
165 <i>Ailanthus glandulosus</i>	23	52	179	China	hP†	g.	20	7-8	6	
166 <i>Alechemilla conjuncta</i>	4	25	170	France	hP†	w.	...	...	3	Sow in good garden soil.
167 <i>Alfredia cernua</i>	19	53	98	Siberia	...	...	1	6-7	6	
168 <i>Allium azureum</i>	6	25	74	Altai	hPb	b.	...	5-7	6	A very pretty tribe of bulbous plants: will grow in any good garden soil and under water.
169 <i>frägrans</i>	...	...	...	W. Indies	...	w.	...	9-10	6	
170 <i>Moly</i>	...	...	...	S. Europe	...	y.	2	6-7	6	Sow in sandy loam.
171 <i>Victoriäle</i>	...	...	...	Austria	...	w.	...	5-6	6	
172 <i>Aloc ferox</i>	...	...	125	C. Good Hope	hhS	y.	6	4-5	6	Very showy plants: first-rate for mixed beds. Sow in slight hot-bed in sandy soil, and plant out at the end of May.
173 <i>Alonsoa incisifolia</i>	14	59	178	Chili	hhA	s.	2	6-10	3	
174 <i>grandiflora</i>	...	...	...	...	...	...	...	...	3	A beautiful genus of tuberous-rooted plants. Sow under glass in sandy peat; when established and at rest, keep dryish in pots, or protect from much frost in a border. <i>A. chilensis</i> is adapted for rockeries.
175 <i>Warszewiczii</i>	...	...	...	...	...	...	...	...	3	
176 <i>— compacta</i>	...	...	...	gar. var.	...	...	1	...	4	Showy Malvaceous plants growing in any good garden soil.
177 <i>Alstroemëria aurantiaca</i>	6	25	65	Chili	fl†	c.spot.	2	6-8	3	
178 <i>brasilensis</i>	...	...	...	Brazil	...	r. & y.	...	9-10	6	A. maritimum or Sweet Alyssum is too well known to need comment. <i>A. saxatile compactum</i> , a new variety of the present year, is one of the best early spring-blooming plants in cultivation and can be strongly recommended.
179 <i>chilensis, mixed</i>	...	...	...	Chili	hP†	div.	...	6-8	3	
180 <i>Pelegrina</i>	...	...	...	Peru	fl†	stri.	1	6-9	6	The foliage of these plants is remarkably handsome, which renders them invaluable for producing effect as centres of beds and the background of borders.
181 <i>tricolor</i>	...	...	...	Chili	...	w. p. y.	2	...	6	
182 <i>Vau Houitti</i>	...	...	...	hybrid	div.	div.	...	...	10	Grow in sand, loam, and peat.
183 <i>Althæa cannabina</i>	16	48	137	S. Europe	hP	p.	6	6-7	6	
184 <i>varhousense</i>	...	...	...	...	...	...	...	...	6	A very fragrant yellow Annual.
185 <i>Alyssum Benthäm</i>	15	60	103	Europe	hA	y.	1	4-5	3	
186 <i>maritimum</i>	...	...	...	England	...	w.	...	7-10	3	Good garden soil.
187 <i>saxatile</i>	...	...	...	Candia	hP†	y.	1	4-5	3	
188 <i>— compactum</i>	...	...	...	gar. var.	...	...	...	...	10	Everlasting flower.
189 <i>Wiershecki</i>	...	...	...	Candia	...	...	...	...	3	
190 <i>Anaranthus bicolor</i>	21	40	64	B. Indies	hhA	var. lf.	2	6-9	3	
191 <i>chinensis</i>	...	...	...	China	...	e.	...	6-8	3	
192 <i>speciosissimus</i>	...	...	...	E. Indies	...	var. lf.	...	6-9	6	
193 <i>tricolor</i>	...	...	...	...	...	...	...	...	3	
194 <i>Amaryllis, new species</i>	6	25	65	hybrid	hPb	e.	1	4-5	10	
195 <i>Amblyolëpis setigera</i>	19	54	98	Texas	hA	y.	...	6-8	3	
196 <i>Ambrosia mexicana</i>	21	30	...	Mexico	...	g.	3	7-8	3	
197 <i>Amethystea eierulea</i>	2	25	130	Siberia	...	b.	1½	6-8	3	
198 <i>Ammobium alatum</i>	19	53	98	N. Holland	hhP†	w.	2	3-8	3	



Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
199 <i>Anagallis indica</i>	5	25	160	Nepaul	hA	b.	1	5-9	3	These flowers are very beautiful, and, from their long duration in bloom, are valuable as bedding plants: each plant covers itself with a mass of blossom. Sow in sandy loam in hot-bed in the middle of February, pot and harden off, and at the end of May turn out into borders and edgings for sides of baskets, vases, &c. A. Napoléon and Eugénie are recommended by the R. Horticultural Society.
200 <i>fruticosa</i>	...	...	...	Morocco	hhP+	r.	...	6-10	6	
201 <b>Monelli Breweri</b>	...	...	...	gar. var.	...	d. b.	...	...	6	
202 — <i>Eugénie</i>	...	...	...	...	...	w. & b.	...	...	6	
203 — <i>Memoria d'Etna</i>	...	...	...	...	...	r.	...	...	6	
204 — <i>large red</i>	...	...	...	...	...	...	...	...	4	
205 — <i>large blue</i>	...	...	...	...	...	d. b.	...	...	4	Sow in a little heat in common garden soil.
206 — <i>Napoléon III.</i>	...	...	...	...	...	d. r.	...	...	6	
207 — <i>Trionfo di Firenze</i>	...	...	...	...	...	pa. b.	...	...	6	
208 <i>Anagyris foetida</i>	10	...	132	Spain	hhS	y.	9	4-5	6	
209 <i>indica</i>	...	...	...	Nepaul	...	...	...	...	6	
210 <i>Anehus arvensis</i>	5	...	81	S. Europe	hA	b.	1½	6-9	3	Useful and ornamental plants, will do well in the open borders in any good garden soil.
211 <i>gigantea</i>	...	...	...	...	...	...	4	...	3	
212 <i>italica</i>	...	...	...	...	hhP+	r. p.	...	...	3	
213 <i>paniculata</i>	...	...	...	Madeira	...	b.	2	5-6	3	
214 <i>sempervirens</i>	...	...	...	Britain	...	...	1½	...	3	
215 <i>Andryala tenuifolia</i>	19	53	98	Crimea	...	y.	1	7-8	3	
216 <i>Andrœmeda ovalifolia</i>	10	25	110	N. America	hS	w.	2	5-7	6	Sow in the open borders. Good garden soil. Ornamental Grass.
217 <i>Andropogon Sorghum</i>	23	51	123	Jamaica	sP	ap.	4	7-8	6	
218 <i>Anemone alpina</i>	13	35	162	Enrope	hPh	w.	1	6-7	6	
219 <i>coronaria</i>	...	...	...	Levant	...	div.	...	1-12	6	
220 <i>canadensis</i>	...	...	...	S. Enrope	hP	b.	...	6-7	6	
221 <i>Hudsoniana</i>	...	...	...	N. America	...	w.	½	...	6	
222 <i>Halleri</i>	...	...	...	Switzerland	...	p.	...	4-5	6	These are among the earliest and prettiest of our spring blossoms. A. coronaria, the common garden Anemone, is too well known to need comment, but is most usually grown from the bulbs. Sow, any time after the seed is ripe, in sandy loam, and keep shaded until vegetation has taken place: thin and transplant in time.
223 — <i>montana</i>	...	...	...	...	...	...	1	6-7	6	
224 <i>narcissiflora</i>	...	...	...	Siberia	...	w.	...	5-6	6	
225 <i>quinquefolia</i>	...	...	...	...	...	...	...	...	6	
226 <i>rivularis</i>	...	...	...	N. India	...	w.	1½	5-6	6	
227 <i>sibirica</i>	...	...	...	Siberia	...	...	¼	6-7	6	
228 <i>stellata</i>	...	...	...	...	...	...	...	...	6	Custard Apple. Pretty Annuals of very long duration in bloom. Sow under glass in loam and peat.
229 <i>virginiana</i>	...	...	...	...	...	...	...	...	6	
230 <i>Annona squamosa</i>	...	...	68	S. America	sT	w. & g.	20	...	6	
231 <i>Anoda Dilleniana</i>	16	48	137	Mexico	hA	h.	1½	6-7	3	
232 <i>Wrightii</i>	...	...	...	...	...	...	...	...	6	
233 <i>Anomatheca eruenta</i>	3	25	128	C. Good Hope	hhPh	d. r.	1	5-9	6	Showy flowers, growing freely in any garden soil.
234 <i>Anthemis, sp. ex Chili</i>	19	54	98	Chili	hA	y.	...	6-7	6	
235 <i>arabicus</i>	...	...	...	Arabia	...	...	...	...	6	
236 <i>chia</i>	...	...	...	Chili	...	...	...	...	6	
237 <i>purpurea</i>	...	...	...	...	...	p.	...	...	6	
238 <i>Anthoxanthum græile</i>	2	26	123	Scilly	...	ap.	½	4-5	3	Ornamental Grass.
239 <i>Antirrhinum majus, m.</i>	14	59	175	England	hhP+	div.	2	6-9	3	
240 <b>choicest mixed</b>	...	...	...	gar. var.	...	...	...	...	6	
241 <i>majus album</i>	...	...	...	...	...	w.	...	...	10	
242 — <i>nanum</i>	...	...	...	...	...	...	1	...	6	
243 — <i>bicolor</i>	...	...	...	...	...	w. & c.	2	...	6	These flowers are commonly known under the name of Snapdragon, and are the most serviceable of Hardy Perennials. All the varieties will bloom early out of doors the same season if sown under glass in March and protected a little at first, and make very compact beds. The varieties here specified comprise all the finest kinds in cultivation, and to the admirers of this useful and very ornamental plant will prove gratifying in every respect.
244 — <i>Brilliant</i>	...	...	...	...	...	s. & w.	...	...	6	
245 — <i>caryophylloides</i>	...	...	...	...	...	str.	...	...	6	
246 — <i>Delila</i>	...	...	...	...	...	ro. & w.	...	...	6	
247 — <i>Firefly</i>	...	...	...	...	...	s. & y.	...	...	6	
248 — <i>Galathee</i>	...	...	...	...	...	c. & w.	...	...	6	
249 — <i>Ophir</i>	...	...	...	...	...	y.	...	...	6	
250 — <i>pourpre superbe</i>	...	...	...	...	...	p.	...	...	6	
251 — <i>Papillon</i>	...	...	...	...	...	s. & w.	...	...	6	
252 — <i>Roi des Feux</i>	...	...	...	...	...	s.	...	...	6	
253 — <i>striatum novum</i>	...	...	...	...	...	stri.	...	...	6	
254 <i>Aphyllanthes monspeliensis</i>	6	25	74	France	hhP	r.	1	6-7	6	Sow in good garden soil.
255 <i>Apollodchlamys Bellardieri</i>	...	...	...	...	...	...	...	...	6	Columbine. This pretty and interestingly varied genus of plants scarcely meets with the amount of consideration it deserves: when fully established, the Aquilegias will stand frost well, and the earliness and abundance of their blooms ought to render them general favourites. A. alpina and glandulosa are extremely beautiful, and can be strongly recommended. A. Skinneri has the most brilliant colours, viz scarlet and yellow, and is very beautiful. Sow in sandy soil under glass, or covered with a mat: in April, when the seedlings appear, give light, and transplant to mixed borders. A. caryophylloides, No. 258, is a new variety of the Double Columbine, and commended by the Floral Committee of the Royal Horticultural Society.
256 <i>Aquilegia alpina</i>	13	30	162	Switzerland	hP	b. & w.	1½	5-6	6	
257 <i>canadensis</i>	...	...	...	N. America	...	p.	2	5-7	6	
258 <b>caryophylloides</b>	...	...	...	gar. var.	...	stri.	...	4-5	6	
259 <i>formosa</i>	...	...	...	Kauschatka	...	r. & o.	1½	5-7	6	
260 <i>fragrans</i>	...	...	...	Himalaya	...	y. stri.	1	5-6	6	
261 <i>glandulosa</i>	...	...	...	Siberia	...	b. & w.	1½	...	6	
262 <i>hybrida atrolilacea</i>	...	...	...	gar. var.	...	d. li.	2	...	6	
263 — <i>caulea</i>	...	...	...	...	...	h.	...	...	6	
264 <i>sibirica</i>	...	...	...	Siberia	...	b. & w.	1½	5-7	6	
265 <b>Skinneri</b>	...	...	...	Guatemala	...	s. & y.	...	...	6	
266 <i>viridiflora</i>	...	...	...	Siberia	...	g.	...	...	6	
267 — <i>atropurpurea</i>	...	...	...	gar. var.	...	p.	...	...	6	
268 <i>vulgaris Durandi</i>	...	...	...	...	...	stri.	2	4-5	3	
269 — <i>atrolilacina</i>	...	...	...	...	...	d. li.	...	...	3	
270 — <i>alba</i>	...	...	...	...	...	w.	...	...	6	
271 — <i>carnea</i>	...	...	...	...	...	flsh.	...	...	3	
272 — <i>kermesina fl. pl.</i>	...	...	...	...	...	c.	...	...	3	

<i>Scientific Name.</i>	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
273 <i>Aquilegia vulgaris striata</i>	13	30	162	gar. var.	hP	stri.	2	4-5	3	For descriptions and observations on the culture of the Aquilegia, see preceding page.
274 <i>vulgaris variegata</i>	...	...	...	...	...	var.	...	...	3	
275 <i>Wittmanni</i>	...	...	...	...	...	...	...	...	6	
276 <b>choicest mixed</b>	...	...	...	...	...	div.	...	...	6	Very pretty early spring plants, well adapted for rockeries, clumps, and edgings.
277 <i>A'rabis alpina</i>	15	61	103	Switzerland	...	w.	4	...	3	
278 <i>albida</i>	...	...	...	...	...	...	...	...	3	
279 <i>caucásica</i>	...	...	...	Caucasus	...	...	...	...	3	Chinese Rice-paper Plant.
280 <i>Aralia papyrifera</i>	5	30	70	China	sS	...	4	6-7	1 0	
281 <i>Araucaria imbricata</i>	22	49	99	S. America	hS	y.	20	...	1 0	
282 <i>Arbutus Unedo</i>	10	26	110	Ireland	...	...	10	9-12	3	Well-known hardy Shrub.
283 <i>Arctotis breviscapa</i>	19	56	98	Cape G. Hope	hA	o. & b.	1	6-10	6	Beautiful Annuals: after the character of Gazania splendens.
284 <i>grandiflora</i>	...	...	...	...	...	pa. y.	...	...	6	Palms: sow in heat, in a mixture of sand, loam, and peat.
285 <i>Arca oleracea</i>	21	49	148	W. Indies	sT	w.	40	...	1 0	
286 <i>madagascariensis</i>	...	...	...	Madagascar	...	...	...	...	1 0	
287 <i>Argyrea multiflora**</i>	5	25	100	E. Indies	gP	p.	10	7-8	6	Splendid Convolvulus-like plants.
288 <i>splendens**</i>	...	...	...	...	...	...	...	...	6	
289 <i>Argyrolobium Linnæanum</i>	17	45	132	Mexico	hhP	y.	2	7-9	6	
290 <i>Argemone grandiflora</i>	13	25	149	...	hA	...	3	...	3	Variegated foliage: sow in pans.
291 <i>Hunneimanni</i>	...	...	...	gar. var.	...	...	...	...	3	Useful Annuals for beds. Sow in March, and cover with a garden pot.
292 <i>mexicana</i>	...	...	...	Mexico	...	...	...	...	3	
293 <i>platyceras</i> [*]	...	...	...	gar. var.	...	w.	...	...	3	
294 <i>Aristolochia altissima</i>	20	41	71	...	gS	p.	6	8-9	6	Remarkable and handsome climbing plants; the flowers resembling variously shaped horns. A. Siphos does well in the open borders. Soil, loam and peat.
295 <i>Bonplandi**</i>	...	...	...	Patagonia	...	...	...	...	1 0	
296 <i>ciliosa**</i>	...	...	...	...	...	p. & g.	...	...	6	
297 <i>Siphos**</i>	...	...	...	N. America	hS	d. p.	30	6-7	1 0	Useful hardy Perennials, adapted for rock-work, edgings, or culture in pots. Sow in sandy soil at the beginning of April.
298 <i>Armeria angustifolia</i>	5	30	153	...	hP	ro.	1	4-8	6	
299 <i>cephalotis</i>	...	...	...	...	...	...	...	...	6	
300 <i>dianthoides</i>	...	...	...	gar. var.	...	...	...	...	6	Common garden soil.
301 <i>formosa fl. alba</i>	...	...	...	...	...	w.	1	...	6	
302 <i>— fl. carnea</i>	...	...	...	...	...	flsh.	...	...	6	
303 <i>grandiflora</i>	...	...	...	...	...	ro.	...	...	3	Sow in hot-bed in February, and harden off for greenhouse: sow the hardy kinds in the open air in April.
304 <i>Artemisia arborescens</i>	19	54	98	Levant	hS	y. & g.	10	6-8	4	
305 <i>Asclepias curassavica</i>	5	26	73	S. America	hP	s.	3	6-9	3	
306 <i>mexicana</i>	...	...	...	Mexico	gS	w.	...	7-9	6	Pretty rock or edging plant.
307 <i>salicifolia</i>	...	...	...	S. America	gP	...	...	6-7	6	
308 <i>Asperula ciliata</i>	4	25	168	Levant	hA	y.	1	7-8	3	
309 <i>Aster alpinus</i>	19	54	98	Alps	hP	p.	1	5-8	3	Sow in open borders in March in common garden soil.
310 <i>tencilus</i>	...	...	...	Cape G. Hope	hA	b.	2	9-10	3	
311 <i>Astragalus chlorostachys</i>	17	45	132	Nepaul	hP	g. & y.	3	8-9	6	
312 <i>galegiformis</i>	...	...	...	...	...	p.	1	4-8	6	Very easily cultivated herbaceous Perennials. Sow in pans, and plant out into borders: common garden soil.
313 <i>leucophæus</i>	...	...	...	Germany	...	w.	...	...	6	
314 <i>purpureus</i>	...	...	...	S. France	...	p.	...	6-7	6	
315 <i>Astrantia maxima</i>	...	...	...	...	...	...	...	...	6	African Daisy: sow in open borders.
316 <i>Athanasia annua</i>	19	53	98	Barbary	hA	y.	1	6-8	3	
317 <i>Atriplex cinereum</i>	23	25	94	S. Europe	...	...	...	...	6	
318 <i>mimularia</i>	...	...	...	...	...	...	...	...	6	Pretty ornamental-foliaged plants.
319 <i>Aubretia grandiflora</i>	15	60	103	Levant	hP	p.	1	3-5	6	
320 <i>Azalea, Ghent vars.</i>	5	25	165	China	gS	div.	4	...	1 0	
321 <i>pontica</i>	...	...	...	Levant	hS	...	6	5-6	1 0	Well-known handsome Shrubs; culture the same as for Rhododendrons.
322 <i>Baeria chrysostoma</i>	19	54	98	California	hA	y.	1	4-6	3	
323 <i>Baptisia australis</i>	10	25	132	N. America	hP	b.	4	6-7	6	
324 <i>perfoliata</i>	...	...	...	Carolina	hhP	y.	3	7-8	6	Usual half-hardy treatment.
325 <i>virginica</i>	...	...	...	Virginia	...	...	...	...	6	
326 <i>Barleria cærulea</i>	14	59	63	E. Indies	sP	b.	1	6-8	1 0	
327 <i>hirsuta</i>	...	...	...	...	...	...	...	...	1 0	Handsome plants. Sow in pans; plant into pots in a mixture of peat, loam, and rotted cow-dung.
328 <i>Prionitis</i>	...	...	...	...	sS	o.	3	7-8	1 0	
329 <i>Bartonia aurea</i>	12	25	135	California	hA	...	1	7-11	4	
330 <i>Bauhinia acuminata**</i>	10	...	132	E. Indies	sS	w.	8	...	1 0	Rich golden Annual: common soil.
331 <i>alba**</i>	...	...	...	...	...	...	15	...	1 0	
332 <i>brachycarpa**</i>	...	...	...	...	...	...	...	...	1 0	
333 <i>diphylla**</i>	...	...	...	...	...	...	...	...	1 0	Very handsome hothouse Climbers. Soak the seeds in warm water previous to sowing, then sow in hot-bed and grow in sandy loam.
334 <i>parviflora**</i>	...	...	...	...	...	...	20	...	1 0	
335 <i>perfecta**</i>	...	...	...	...	...	stri.	...	...	1 0	
336 <i>purpurea**</i>	...	...	...	...	...	p.	...	...	1 0	...
337 <i>Ricardiana<sup>1</sup></i>	...	...	...	...	...	w.	...	...	1 0	
338 <i>— grandiflora**</i>	...	...	...	...	...	...	...	...	1 0	
339 <i>variegata**</i>	...	...	...	...	...	stri.	...	...	1 0	One of the best of the hothouse Climbers.
340 <i>sp. ex India**</i> [ra**]	...	...	...	...	...	w.	...	...	1 0	
341 <i>Baumontia grandiflora</i>	5	...	69	...	...	...	...	...	1 0	
342 <i>Bedfordia salicina</i>	...	...	...	...	...	...	...	...	6	Handsome-foliaged plants, the requisites for every Greenhouse or Stove.
343 <i>Begonia cinnabarina</i>	21	48	77	Bolivia	sPb	o. v.	2	5-7	1 0	
344 <i>humilis</i> [Daisy]	...	...	...	...	...	s.	...	...	1 0	
345 <i>Bellis perennis</i> (Double)	19	54	98	hybrids	hP	div.	1	3-8	1 0	Fine double Daisy.
346 <i>Bellium minutum</i>	...	...	...	Italy	...	w.	1	6-9	6	Common garden soil.

<i>Scientific Name.</i>	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
347. <i>Benincasa cerifera</i> **	23	51	104	E. Indies	hhA	y.	10	7-9	6	} Handsome black-fruited wax-like Gourds. Grows best in a sheltered situation.
348. <i>sinensis</i> **	...	...	...	China	...	...	...	...	6	
349. <i>Benthàmia fragifera</i>	4	25	103	E. Indies	hS	y. & h.	4	6-8	3	
350. <i>Bérberis Beali</i>	6	...	78	gar. var.	...	y.	3	5-6	6	} These well-known deciduous Shrubs are well worthy of the general cultivation bestowed upon them, as for general utility they are very available. Sow common kinds in sandy loam in March and April. Such kinds as <i>B. nepalensis</i> should be protected in a cold pit until they are fairly up: deep loamy soil suits them best.
351. <i>crassifolia</i>	...	...	...	...	...	...	...	...	6	
352. <i>empetrifolia</i>	...	...	...	Valparaiso	...	...	...	3-5	6	
353. <i>diversifolia</i>	...	...	...	Monte Video	...	...	...	...	6	
354. <i>heterophylla</i>	...	...	...	Magellan	...	...	...	5-6	6	
355. <i>intermedia</i>	...	...	...	...	...	...	...	...	6	
356. <i>japonica</i>	...	...	...	...	...	...	...	...	6	
357. <i>Leschenaulti</i>	...	...	...	Neilgherries	...	...	10	4-5	10	} Strikingly handsome Climbers. <i>B. radicans</i> may be grown against a south wall. <i>B. Tweediana</i> has rich golden-yellow blossoms.
358. <i>nepalensis</i>	...	...	...	Nepaul	...	...	...	5-6	6	
359. <i>sp. ex Buenos Ayres</i>	...	...	...	Buenos Ayres	...	...	4	...	6	
360. <i>Bidens aurea</i>	19	53	98	S. America	hA	...	2	6-8	3	} These plants have many of the characteristics of the well-known <i>Coreopsis</i> , and are very useful for mixed borders.
361. <i>diversifolia</i>	...	...	...	...	...	...	...	7-8	3	
362. <i>grandiflora</i>	...	...	...	...	...	...	...	...	3	
363. <i>ferulaefolia</i>	...	...	...	Mexico	...	...	...	...	3	} Strikingly handsome Climbers. <i>B. radicans</i> may be grown against a south wall. <i>B. Tweediana</i> has rich golden-yellow blossoms.
364. <i>leucantha</i>	...	...	...	S. America	...	w.	...	...	3	
365. <i>tenuifolia</i>	...	...	...	...	...	y.	...	...	3	
366. <i>Bignonia catalpa</i> **	14	59	79	N. America	hS	w.	10	6-8	6	} Strikingly handsome Climbers. <i>B. radicans</i> may be grown against a south wall. <i>B. Tweediana</i> has rich golden-yellow blossoms.
367. <i>gracilis</i> **	...	...	...	S. America	gS	...	...	4-5	10	
368. <i>tomentosa</i> **	...	...	...	...	...	...	...	6-8	10	
369. <i>Tweediania</i> **	...	...	...	Buenos Ayres	...	y.	...	...	10	} Sow in loam and peat.
370. <i>radicans major</i> **	...	...	...	S. America	hhs	o.	...	6-9	6	
371. <i>Billbergia zebrina</i>	6	25	82	Rio Janeiro	slP	stri.	1½	5-7	6	
372. <i>Biota glauca</i>	21	49	99	S. Europe	hS	ap.	10	6-6	6	} Handsome Thuja-like plants. Sow in loam and peat.
373. <i>freneloides</i>	...	...	...	...	...	...	...	...	6	
374. <i>Blitum capitatum</i>	1	...	94	Austria	hA	...	2	...	3	
375. <i>Blumenbachia insignis</i>	18	48	135	Monte Video	hhA	w.	¾	7-11	3	} Common garden soil. Slight hot-bed: plant out in May.
376. <i>Bombax Gossipium</i>	16	32	190	E. Indies	gT	...	60	...	10	
377. <i>Bossia alata</i>	17	45	132	N. S. Wales	gS	y. & r.	3	7-9	10	
378. <i>cordifolia</i>	...	...	...	N. Holland	...	y. & p.	...	5-6	10	} Handsome Greenhouse Shrubs. Soak the seeds in warm water, then sow in hot-bed in sandy loam and peat, and harden off gradually.
379. <i>heterophylla</i>	...	...	...	N. S. Wales	...	y.	...	5-10	10	
380. <i>linophylla</i> *	...	...	...	...	...	...	...	5-6	10	
381. <i>rotundifolia</i>	...	...	...	Australia	...	...	...	...	10	} Swan River Daisy: a pretty and effective bedding plant.
382. <i>Brachycome iberidifolium</i>	19	54	98	Swan River	hhA	b.	1	6-8	3	
383. <i>album</i>	...	...	...	...	...	w.	...	...	3	
384. <i>Briza geniculata</i>	3	26	123	Cape G. Hope	...	ap.	...	...	6	} Ornamental Grasses, growing freely in the open borders, and very useful for summer and winter bouquets.
385. <i>Brizopyrum siculum</i>	...	...	...	N. America	...	...	...	...	6	
386. <i>Brömus brizaeformis</i>	...	...	...	S. Europe	...	...	...	...	6	
387. <i>lanuginosus</i>	...	...	...	...	...	...	...	...	6	} These half-hardy Annuals are very striking, and well worth cultivation. Very serviceable for Greenhouse or Conservatory decoration. Sow in hot-bed in light soil in March or April; prick off; pot and re-pot separately in sandy loam and peat.
388. <i>Browallia Cerviakowski</i>	14	59	175	gar. var.	...	b. & w.	1½	7-10	6	
389. <i>demissa</i>	...	...	...	S. America	...	b.	¾	6-9	3	
390. <i>elata carthica</i>	...	...	...	Peru	...	...	1½	...	3	} Requires deep, sandy, loamy soil.
391. <i>— alba</i>	...	...	...	...	...	w.	...	...	3	
392. <i>— carulea grandiflora</i>	...	...	...	gar. var.	...	b.	...	...	6	
393. <i>— tombante</i>	...	...	...	...	...	...	...	...	6	} Curious-foliaged plants: succeed in any good garden soil.
394. <i>Buddleia Lindleyana</i>	3	25	175	China	hhs	v.	6	6-7	6	
395. <i>Buplenrum fruticosum</i>	5	26	184	S. Europe	hS	g.	3	7-8	3	
396. <i>graminifolium</i>	...	...	...	...	...	...	...	...	3	} Sow in good garden light soil.
397. <i>Cacalia coccinea</i>	19	53	98	S. America	hA	s.	1½	6-7	3	
398. <i>— aurea</i>	...	...	...	...	...	y.	...	...	2	
399. <i>Calampelis miniata</i> **	14	59	79	Chili	hS	car.	10	7-9	3	} Very handsome Climbers. Sow in hot-bed, and plant out in May.
400. <i>scabra</i> **	...	...	...	...	...	o.	...	...	3	
401. <i>Calandrinia discolor</i>	11	25	159	...	hA	ro.	1½	...	3	
402. <i>grandiflora</i>	...	...	...	...	...	p.	1	...	3	} Very useful and pretty Annuals, growing freely in any good garden soil. <i>C. umbellata</i> is the most brilliant in colour of all the Annuals, and suited for edgings, clumps, or rockeries.
403. <i>rosea</i>	...	...	...	...	...	ro.	...	...	3	
404. <i>speciosa</i>	...	...	...	N. California	...	...	...	6-9	3	
405. <i>umbellata</i>	...	...	...	Chili	hhA	c.	¾	...	4	} Fill the pots half full of drainage, then loam and peat, and then ¼ inch of sand; water well, and when the surface is dry, press it level and scatter the dust-like seed; cover with a little sand, and place a square of glass over the pot in a frame.
406. <i>Calceolaria</i> , finest hybrid	2	...	175	hybrids	gP	div.	2	...	10	
407. <i>new dwarf spotted</i>	...	...	...	...	...	...	1	...	10	
408. <i>new blotched</i>	...	...	...	...	...	...	2	...	10	} Good garden soil.
409. <i>pinnata</i>	...	...	...	Peru	hhA	y.	...	...	6	
410. <i>scabiosaeifolia</i>	...	...	...	Chili	...	...	...	...	3	
411. <i>sp. ex Chili</i>	...	...	...	...	...	...	...	...	3	} A mixture of peat, loam, and sand.
412. <i>Calimeris diplopappus</i>	19	54	98	N. America	hP	b.	1½	7-8	6	
413. <i>Calla aethiopica</i>	6	25	72	Cape G. Hope	hPh	w. & y.	3	1-4	3	
414. <i>Calliethra platyglossa</i>	19	54	98	California	hA	y.	1	7-9	3	} Common garden soil.
415. <i>Calliopsis Atkinsoniana</i>	...	55	...	Columbia	...	y. & b.	2	...	3	
416. <i>bicolor</i>	...	...	...	N. America	...	...	3	...	3	
417. <i>— atrosanguinea</i>	...	...	...	...	...	d. r.	...	...	3	} These handsome and showy Annuals are, from their brilliant colours and long duration in bloom, worth extensive cultivation. <i>C. Burridgiana</i> and <i>atropurpurea</i> are the most brilliant: all the varieties make good ribands and beds.
418. <i>— grandiflora</i>	...	...	...	...	...	y.	...	...	3	
419. <i>— marmorata</i>	...	...	...	gar. var.	...	mar.	...	...	6	
420. <i>— — nana</i>	...	...	...	...	...	...	1	...	6	



Scientific Name.		L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.								feet		s. d.	
421	<i>Calliopsis bicolor nana</i>	19	55	98	gar. var.	hA	y. & b.	1	7-9	3	If the seed-pods of the different varieties of <i>Calliopsis</i> be picked as soon as they show themselves, the plants will bloom for a much longer time. Sow early in common soil and cover with garden pots, or make up a slight hot-bed, cover the surface with rotted leaves, and then with three inches of loam and leaf-mould: sow the seed thickly, in rows about three inches apart, and when ready plant out where wanted.
422	— <i>nigra speciosa</i>	...	...	...	...	...	d. r.	3	...	3	
423	— <i>nana</i>	...	...	...	...	...	...	1	...	6	
424	— <i>quilled</i>	...	...	...	...	...	y. & b.	2	...	6	
425	<i>Ackermanni</i>	...	...	...	...	...	y.	...	...	3	
426	<i>cardaminifolia</i>	...	...	...	...	...	...	...	...	6	
427	<i>coronata</i>	...	...	...	Texas	...	y. spot.	...	...	3	
428	<i>Drummondii</i>	...	...	...	...	...	y.	...	...	3	
429	<i>filifolia</i>	...	53	...	...	...	...	3	...	3	
430	— <i>Burridgii</i>	...	...	...	gar. var.	...	c. & y.	...	...	3	
431	— <i>atropurpurea</i>	...	...	...	...	...	p. & y.	...	...	6	Very beautiful, blooming for four or five months continuously. Sow in heat in sandy peat. Cool greenhouse. Fragrant and handsome Shrubs: sow in heat and transplant. Saved from the finest collection in Italy.
432	<i>longipes</i>	...	...	...	Texas	...	y.	2	3-8	6	
433	<i>Callirhoe digitata</i>	16	48	137	N. America	...	d. ro.	...	6-10	6	
434	— <i>nana</i>	...	...	...	...	...	...	1	...	6	
435	<i>Callistachys lanceolata</i>	10	25	132	N. Holland	gS	y.	3	7-8	6	
436	<i>Calodendrum capensis</i>	5	...	168	Cape G. Hope	gT	pk.	40	7-9	6	
437	<i>Calycanthus præcox</i>	12	35	85	Japan	hS	y. & r.	6	2-12	6	
438	<i>macrophyllus</i>	...	...	...	California	...	...	...	...	6	
439	<i>sinensis</i>	...	...	...	China	...	...	...	...	6	
440	<i>Camellia, finest double</i>	16	48	86	...	S	div.	div.	5-7	10	
441	<i>Campánula alliarifolia</i>	5	25	87	Caucasus	hP	b.	1	7-9	6	This is one of the most useful, well-known and appreciated tribe of Perennials: the seeds of all the kinds are very small, and should be only slightly covered: all the perennial varieties, if sown in the beginning of April in nice friable soil, will bloom the second year: many, if sown as mentioned above for <i>Calliopsis</i> , will bloom in the autumn of the first year, as the beautiful <i>C. carpatia</i> and <i>alba</i> , so good for beds and edgings. <i>C. pyramidalis</i> is very elegant, may be trained to any form of growth, and if sown early will bloom the first year: may be grown either in pots or borders. <i>C. grandiflora</i> and <i>grandis</i> bloom more freely, and the long drooping purple blooms of the former are very handsome. <i>C. Vidalli</i> is a new species from the Azores, and is very elegant. Such pretty Annuals as <i>C. Lorei</i> and <i>pentagonia</i> will bloom beautifully in the open borders if sown early and well thinned, or sown thinly in the first instance.
442	<i>bononiensis</i>	...	...	...	Italy	hP†	...	2	5-9	3	
443	<i>carpatia</i>	...	...	...	Carp. Alps	...	...	½	6-9	3	
444	— <i>alba</i>	...	...	...	...	...	w.	...	...	3	
445	<i>grandiflora, true</i>	...	...	...	Siberia	...	p.	1	...	6	
446	<i>grandis</i>	...	...	...	Natolia	...	b.	3	8-9	3	
447	<i>lamiifolia</i>	...	...	...	Iberia	...	pa. y.	...	6-7	6	
448	<i>latifolia</i>	...	...	...	Britain	...	p.	4	7-8	3	
449	— <i>alba</i>	...	...	...	...	...	w.	...	...	6	
450	<i>littoralis</i>	...	...	...	N. Holland	hhB	b.	½	4-8	3	
451	<i>Lorei</i>	...	...	...	Italy	hA	...	1	7-8	3	... ..
452	— <i>alba</i>	...	...	...	...	...	w.	...	...	3	
453	<i>macrantha</i>	...	...	...	Mahuria	hP†	b.	2	...	3	
454	<i>nobilis</i>	...	...	...	China	hhP	pa. p.	3	...	6	
455	<i>pentagonia</i>	...	...	...	Turkey	hA	b. & p.	1	5-8	3	
456	— <i>alba</i>	...	...	...	...	...	w.	...	...	3	
457	<i>persicifolia</i>	...	...	...	Europe	hP†	...	3	7-9	3	
458	— <i>maxima</i>	...	...	...	...	...	...	...	...	6	
459	<i>pulcherrima</i>	...	...	...	gar. var.	...	b.	2	6-9	6	
460	<i>pyramidalis</i>	...	...	...	Carniola	...	pa. b.	4	6-7	6	
461	— <i>alba</i>	...	...	...	...	...	w.	...	...	6	This tribe is remarkable for its large, handsome foliage, and, we are inclined to think, has hitherto scarcely met with the amount of attention it deserves. To large gardens in a warm situation the various species of <i>Canna</i> will be found invaluable adjuncts, and their appearance in masses is rich, luxuriant, and tropical. Soak the seeds in water at 125° for about 12 hours: sow in sandy loam and peat, and place in a brisk hot-bed: when well up, thin, and pot separately, and keep under glass. If plants be turned out the second week in June, in a rich soil and sheltered situation, they will combine with other plants of a similar nature in imparting an unequalled mass of rich verdure to an otherwise ordinary-looking garden: the roots can be lifted before the arrival of frost, kept in a cool stove, and planted out again in the ensuing summer.
462	<i>rhomboides fl. pl.</i>	...	...	...	Switzerland	hP	pa. b.	2	...	6	
463	<i>striata</i>	...	...	...	Syria	hB	w.	½	6-8	3	
464	<i>strigosa</i>	...	...	...	Italy	hP†	b.	1	...	6	
465	<i>Trachelium fl. pl.</i>	...	...	...	Britain	hP	v.	4	...	3	
466	— <i>album plenum</i>	...	...	...	...	...	w.	...	...	3	
467	<i>Vidalli</i>	...	...	...	Azores	hhP	...	1½	7-8	6	
468	<i>Canua bicolor</i>	1	...	88	Brazils	hhPt	...	2	4-11	4	
469	<i>coccinea vera</i>	...	...	...	S. America	...	s.	...	1-12	3	
470	<i>compacta elegantissima</i>	...	...	...	gar. var.	...	o.	...	4-7	6	... ..
471	<i>edulis</i>	...	...	...	E. Indies	...	s.	4	...	6	
472	<i>Fintelmanni</i>	...	...	...	gar. var.	...	y.	...	...	10	
473	<i>flaccida</i>	...	...	...	E. Indies	...	s.	...	...	6	
474	<i>gigantea vera</i>	...	...	...	S. America	...	r. & y.	7	1-12	10	
475	<i>indica</i>	...	...	...	E. Indies	...	s.	4	...	3	
476	— <i>rubra</i>	...	...	...	...	...	...	...	...	6	
477	— <i>species nova</i>	...	...	...	...	...	...	...	...	6	
478	<i>Kartsteiniana</i>	...	...	...	gar. var.	...	d. r.	...	...	6	
479	<i>laeta</i>	...	...	...	...	...	...	...	...	6	
480	<i>lagunensis</i>	...	...	...	Laguna	...	y. spot.	5	8-11	3	... ..
481	<i>Lamberti</i>	...	...	...	Trinidad	...	s.	4	5-6	6	
482	<i>leptophylla</i>	...	...	...	S. America	...	e.	3	1-12	4	
483	<i>limbata</i>	...	...	...	Brazils	...	r.	...	...	4	
484	<i>lutea</i>	...	...	...	E. Indies	...	y.	...	...	3	
485	— <i>pieta</i>	...	...	...	...	...	y. & s.	...	...	3	
486	<i>nepalensis</i>	...	...	...	Nepaul	...	y. spot.	...	...	10	
487	<i>Schuberti</i>	...	...	...	gar. var.	...	r.	...	...	3	
488	<i>speciosa</i>	...	...	...	S. America	...	...	...	8-10	3	
489	<i>species nova</i>	...	...	...	E. Indies	...	s.	...	...	6	
490	— <i>ex Guatemala</i>	...	...	...	Guatemala	...	...	...	...	6	... ..
491	<i>spectabilis</i>	...	...	...	gar. var.	...	...	...	...	6	
492	<i>subruata rubra</i>	...	...	...	...	...	d. r.	...	...	6	
493	<i>variabilis</i>	...	...	...	India	...	...	...	1-12	3	
494	<i>Sellowi</i>	...	...	...	S. America	...	s.	...	...	3	

Scientific Name.	L.	O.	N.O.	Native Country.	H. & Dur.	Dur. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s.d.		
495 <i>Canna Warszewiczii</i>	1	25	88	Cen. America	hhPt	s.	4	8-11	3	For culture, see preceding page.
496 <i>Cannabis gigantea</i>	22	40	185	India	hhA	g.	6	6-7	6	Ornamental grass.
497 <i>Capparis spinosa</i>	13	25	89	S. Europe.	hhS	ro.	3	5-8	6	Sow in heat and transplant.
498 <i>Capsicum microphyllum</i>	5	...	178	India	hhA	s.	2	...	6	Ornamental fruit; pretty for conservatory.
499 <i>Cardiospermum Halicac.**</i>	19	53	172	...	gA	w. & g.	4	7-8	3	Usual greenhouse treatment.
500 <i>Carduus nigrescens</i>	19	53	98	Europe	hB	p.	...	...	3	C. nigrescens is a sweet-scented pink-flowered
501 <i>Benedictus</i>	...	...	...	...	hA	w.	3	...	3	Thistle; the other varieties are well adapted
502 <i>Mariannus</i>	...	...	...	...	...	...	...	...	3	for mixed borders.
503 <i>Carica papaya</i> ...	22	45	104	India	sS	g.	20	...	1	Indian Fruit: stove treatment.
504 <i>Carthamus tinctorius</i>	19	53	98	Britain	hB	p.	5	...	3	Common garden soil.
505 <i>Carissa carandas</i>	5	25	60	E. Indies	sT	w.	15	...	1	Indian Fruit: stove treatment.
506 <i>Cassia alata</i>	10	...	132	W. Indies	gS	y.	12	6-7	6	...
507 <i>auriculata</i>	...	...	...	E. Indies	...	...	6	7-9	6	...
508 <i>corymbosa</i>	...	...	...	...	...	...	...	7-8	6	...
509 <i>crenophylla</i>	...	...	...	...	...	...	...	...	6	This is a very handsome genus of Ornamental
510 <i>fistula</i>	...	...	...	...	...	...	...	...	6	Shrubs, useful for either Greenhouse or
511 <i>glauca</i>	...	...	...	...	...	...	4	...	6	Conservatory decoration; and many of the
512 <i>grandiflora</i>	...	...	...	...	...	...	...	6-9	6	species may be employed to adorn the out-
513 <i>lævigata</i>	...	...	...	...	...	...	...	...	6	door garden if planted out in June and re-
514 <i>Marylandica</i>	...	...	...	America	...	...	2½	5-8	6	moved before the appearance of frost. Sow
515 <i>occidentalis</i>	...	...	...	W. Indies	...	...	4	...	6	in hot-bed, and soak the seeds before
516 <i>palmistifolia</i>	...	...	...	E. Indies	...	...	...	...	6	sowing. C. tenuifolia has long spikes of
517 <i>quadrialvis</i>	...	...	...	...	...	...	3	6-9	6	bloom densely covered with deep golden
518 <i>sumatrana</i>	...	...	...	Sumatra	...	...	4	...	6	flowers.
519 <i>tenuifolia</i>	...	...	...	E. Indies	...	...	...	...	6	...
520 <i>tomentosa</i>	...	...	...	...	...	...	15	...	6	...
521 <i>Casuarina muricata</i>	21	36	92	...	gT	ap.	2	7-10	3	Curious-foliaged Greenhouse plant.
522 <i>Catananche cærulea</i>	19	53	98	S. Europe	hPt	b.	2	7-10	3	Sow in sandy loam.
523 <i>— bicolor</i>	...	...	...	...	...	b. & w.	...	...	3	...
524 <i>lutea</i>	...	...	...	Candia	hA	y.	...	6-9	3	...
525 <i>Cathartocarpus fistula</i>	10	25	132	India	gT	...	20	6-7	6	Very ornamental Greenhouse Shrubs; good
526 <i>grandis</i>	...	...	...	...	...	...	...	...	6	pot plants for Greenhouse or Conservatory
527 <i>nodosus</i>	...	...	...	...	...	...	...	...	6	decoration.
528 <i>Ceanothus africanus</i>	5	...	164	hybrid	hhS	w.	2	7-10	6	Sow in cold pit in April, in sandy peat, then
529 <i>americanus</i>	...	...	...	...	...	...	...	...	6	prick off and pot into sandy loam; prune back
530 <i>azureus</i>	...	...	...	...	...	...	10	4-6	6	every spring.
531 <i>Cedrus Deodara</i> [dalis]	21	49	90	Mexico	hT	ap.	100	...	1	Ornamental Conifer: sow on heat.
532 <i>Celosia aurea pyrami-</i>	5	25	64	Japan	hhP	y.	3	7-10	1	Magnificent plants for Greenhouse or Conserva-
533 <i>New crimson fea-</i>	...	...	...	...	...	c.	...	...	1	tory decoration: succeed well if treated in
534 <i>argentea</i> [thered]	...	...	...	India	hhA	sil.	...	...	6	the same manner as Balsams.
535 <i>Cenia turbinata</i>	19	54	98	Cape G. Hope	hA	ro.	½	...	3	Good garden soil.
536 <i>— flava</i>	...	...	...	...	...	y.	...	...	3	...
537 <i>Centaurea americana</i>	...	55	...	Arkansas	...	li.	3	6-9	3	Of the annual species of Centaurea, C. ame-
538 <i>Crocodylium</i>	...	...	...	Levant	...	p.	1½	7-8	3	ricana, depressa, and rosea are the best: the
539 <i>dealbata</i>	...	...	...	Caucasus	hP	...	2	...	3	perennial species will bloom the second
540 <i>depressa</i>	...	...	...	...	hA	b.	1	6-8	3	year. C. macrocephala has a large globular
541 <i>— rosea</i>	...	...	...	gar. var.	...	r.	...	...	3	orange-yellow blossom: the bloom of C.
542 <i>clongata</i>	...	...	...	Barbary	hP	v.	2	8-9	3	phrygia is similarly shaped, but the colour
543 <i>glastifolia</i>	...	...	...	Siberia	...	y.	4	6-9	3	is purple. All the kinds are well worth
544 <i>invulcerata</i>	...	...	...	Europe	hA	...	...	...	3	cultivation. Grow in any good garden
545 <i>Lippi</i>	...	...	...	Egypt	...	l. p.	...	...	3	soil.
546 <i>macrocephala</i>	...	...	...	Caucasus	hP	y.	3	...	3	...
547 <i>montana</i>	...	...	...	Austria	...	b.	1½	...	3	...
548 <i>phrygia</i>	...	...	...	Switzerland	...	p.	...	...	3	...
549 <i>Centaureidum Drummondii</i>	...	...	...	Europe	...	y.	2	...	3	Good garden soil.
550 <i>Centranthus macrosiphon</i>	1	25	186	Granada	hA	r.	...	6-8	3	...
551 <i>— albus</i>	...	...	...	gar. var.	...	w.	...	...	3	Showy, pretty and free-blooming Annuals:
552 <i>— carneus</i>	...	...	...	...	...	flsh.	...	...	3	growing freely in any good garden soil.
553 <i>— nanus</i>	...	...	...	...	...	...	1	...	3	...
554 <i>Centrosema brasiliensis**</i>	17	45	132	E. Indies	gS	p	4	7-8	6	Handsome Greenhouse Climber.
555 <i>Cephalaria tartarica</i>	4	25	107	Russia	hB	y.	6	5-7	3	Good garden soil.
556 <i>Cephalotaxus Fortunei</i>	22	49	99	Japan	hT	ap.	40	...	2	Handsome Conifer (seed rare).
557 <i>Cerastium tomentosum</i>	10	30	91	S. Europe	hPt	w.	½	6-9	1	Silvery foliage; good for edging.
558 <i>Ceratocloa pendula</i>	3	26	123	N. America	hA	ap.	1½	7-9	6	Ornamental Grasses.
559 <i>unioloides</i>	...	...	...	...	...	...	...	...	6	...
560 <i>Cereis Siliquastrum</i>	10	25	132	S. Europe	hT	p.	18	5-6	4	Sow in cold pit, then harden off: good for
561 <i>— album</i>	...	...	...	...	...	w.	...	...	4	lawns.
562 <i>Cerithe major</i>	5	...	81	S. France	hA	y.	3	7-8	3	Useful hardy plants, succeeding well in any
563 <i>minor</i>	...	...	...	...	...	...	1½	...	3	good garden soil.
564 <i>gymnandra</i>	...	...	...	...	...	...	3	...	3	...
565 <i>Cestrum aurantiacum</i>	...	...	178	Guatemala	gS	o.	...	9-12	6	Sow in hot-bed in sandy soil: fine greenhouse
566 <i>roseum</i>	...	...	...	Mexico	...	ro.	...	...	6	ornaments.
567 <i>Chenostoma fastigiatum</i>	14	59	175	Cape G. Hope	hhA	...	3	7-10	4	Sow in gentle heat: very pretty for edgings or
568 <i>polyanthum</i>	...	...	...	...	...	pk.	1	...	3	rock-work.

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. Dur.	Col. of Fl.	Hght. feet	M. of Flow.	Price. s. d.	GENERAL OBSERVATIONS.
No.										
569 <i>Chænostoma viscosum</i>	14	50	175	Cape G. Hope	hhA	ro.	1	7-10	4	Sow on heat and transplant.
570 <i>Chamærops humilis</i>	23	52	148	S. Europe	gS	g. & w.	6	2-4	6	Dwarf Fan Palm: grows outdoors in summer.
571 <i>Chelone barbata</i>	14	54	175	Mexico	hP	o. s.	3	6-9	3	Fine scarlet Perennials: same culture as for Pentstemon.
572 — <i>coccinea</i>	...	...	...	...	...	s.	...	...	6	
573 <i>Chenopodium atriplicis</i>	5	26	94	China	hA	...	...	7-9	3	Hardy ornamental-foliaged plant.
574 <i>Chironia baccifera</i>	...	25	118	Cape G. Hope	gS	y.	2	7-8	6	Sow in sandy peat and loam in hot-bed, and grow in well-drained pots.
575 — <i>frutescens</i>	...	...	...	...	...	r.	1½	6-9	6	
576 <i>Chironium Opoponax</i>	...	...	...	...	gA	...	...	...	6	
577 <i>Chloris fimbriata</i>	23	51	123	E. Indies	hhA	ap.	1	6-7	4	...
578 — <i>barbata</i>	...	...	...	S. Europe	...	...	...	...	6	
579 — <i>dolichostachya</i>	...	...	...	...	...	...	...	...	4	Ornamental Grasses, extremely curious in growth: grow in any good garden soil.
580 — <i>polydactyla</i>	...	...	...	Jamaica	...	...	¾	...	4	
581 — <i>radiata</i>	...	...	...	W. Indies	...	...	1	7-8	4	
582 — <i>submutica</i>	...	...	...	Mexico	...	...	1	7-8	4	
583 <i>Chorizema cordata</i>	10	25	132	Australia	gS	y.	2	3-4	3	One of the prettiest plants for the decoration of Greenhouse or Conservatory. Soak the seeds in warm water, and sow in sandy peat in hot-bed; harden off when up, and grow in fibry sandy peat.
584 — <i>ilicifolia</i>	...	...	...	N. Holland	...	...	3	3-10	3	
585 — <i>varia</i>	...	...	...	Swan River	...	y. & r.	4	6-7	3	
586 — <i>rotundifolia</i>	...	...	...	...	...	o. & r.	...	...	4	
587 — <i>splendens</i>	...	...	...	...	...	y. & r.	...	...	4	
588 <i>Chrysanthemum carneum</i>	19	54	98	Caucasus	hP	flsh.	2	...	6	
589 — <i>centrosperrum</i>	...	...	...	gar. var.	hA	y.	...	...	3	Nos. 590 and 591 are the well-known Chrysanthemums of the Exhibitions, and the seed offered is saved from a collection of the finest varieties. The other varieties are very ornamental plants for mixed borders.
590 — <i>mixed large-flowed</i>	...	...	...	China	hP	div.	3	10-12	10	
591 — <i>mixed Pompones</i>	...	...	...	...	...	...	1	...	10	
592 — <i>lacustre</i>	...	...	...	...	hA	y.	2	6-7	3	
593 — <i>multicaule</i>	...	...	...	...	...	...	...	...	6	
594 — <i>Silthorpi</i>	...	...	...	...	...	...	...	...	3	
595 <i>Chrysostoma hypochondria</i>	...	...	...	...	...	...	...	...	6	Good garden soil.
596 <i>Chrysurus aureus</i>	3	26	123	Levant	...	ap.	½	7-8	3	Ornamental Grass.
597 <i>Cinnamomum japonicum</i>	9	25	131	Japan	gT	g. & w.	10	3-6	6	Cinnamon Tree.
598 <i>Cineraria, choicest</i>	19	54	98	Caucasus	gS	div.	2	2-5	10	Saved from the best varieties: C. maritima is a fine silvery-foliage bedding plant.
599 — <i>maritima</i>	...	...	...	Cape G. Hope	hP	y.	3	6-8	6	
600 <i>Cirsium macrocephalum</i>	...	53	...	Numidia	hP†	b.	2	7-8	6	Good for mixed borders or shrubberies: sow in any garden soil.
601 — <i>pulcherrimum</i>	...	...	...	N. America	...	y.	4	...	3	
602 <i>Cistus albidus</i>	13	25	95	Spain	hS	p. b.	2	6-7	3	
603 — <i>erispus</i>	...	...	...	S. Europe	...	y.	...	...	3	The Cistus is usually known under the name of Rock Rose, and is useful and ornamental in all situations. Sow the seeds in sandy soil in April, and protect with glass until fairly up: small kinds do best on rock-work and banks in sandy loam, and though hardy, it would be advisable to take a few cuttings or layers every year and protect them during the winter, in case any of the exposed plants die.
604 — <i>erioscapalon</i>	...	...	...	...	...	...	½	5-7	6	
605 — <i>guttatus</i>	...	...	...	England	hA	...	...	6-7	6	
606 — <i>ladaniferus</i>	...	...	...	Spain	hS	w.	4	...	6	
607 — <i>monspeliensis</i>	...	...	...	S. Europe	...	...	2	...	6	
608 — <i>Narnicus</i>	...	...	...	...	...	...	...	...	6	
609 — <i>salvifolius</i>	...	...	...	...	hS	...	...	...	3	
610 — <i>tanricus</i>	...	...	...	Crimia	...	p.	...	...	3	
611 <i>Tuberaria</i>	...	...	...	S. Europe	hhP†	w.	¾	...	3	
612 — <i>villosus</i>	...	...	...	...	hS	p.	3	...	6	
613 — <i>finest mixed rock</i>	...	...	...	div.	...	div.	div.	...	3	
614 <i>Citrus decumana</i>	14	48	75	India	gS	w.	15	5-7	6	Forbidden Fruit or Pommeloc: sow in heat and transplant.
615 — <i>myrtifolius</i>	...	...	...	Asia	...	...	3	...	3	
616 <i>Cladanthus arabicus</i>	19	54	98	Barbary	hA	d. y.	1½	7-8	3	Good garden soil.
617 <i>Clarkia elegans</i>	8	25	146	California	...	ro. p.	2	7-9	3	
618 — <i>fl. pl.</i>	...	...	...	gar. var.	...	...	...	...	3	
619 — <i>rosea</i>	...	...	...	...	...	ro.	...	...	3	Few Annuals are more deservedly approved of than the Clarkia, which is one of the easiest grown and freest-blooming Annuals in cultivation. 627, C. integrifolia, is a vast improvement upon the older kinds; and No. 625, C. pulchella flore pleno, is an entire novelty, and has received a first-class certificate from the Royal Horticultural Society of London. No. 628, C. integrifolia marginata, is a very handsome variety. All the kinds grow freely out of doors.
620 — <i>fl. pl.</i>	...	...	...	...	...	...	...	...	3	
621 — <i>pulchella</i>	...	...	...	N. America	...	...	1½	6-10	3	
622 — <i>alba</i>	...	...	...	gar. var.	...	w.	...	...	3	
623 — <i>grandiflora</i>	...	...	...	...	...	ro.	...	...	3	
624 — <i>alba</i>	...	...	...	...	...	w.	...	...	3	
625 — <i>flore pleno</i>	...	...	...	...	...	...	...	...	10	
626 — <i>Tom Thumb</i>	...	...	...	...	...	ro.	¾	...	6	
627 — <i>integrifolia</i>	...	...	...	...	...	...	1½	...	6	
628 — <i>marginata</i>	...	...	...	...	...	hor.	...	...	6	
629 — <i>marginata</i>	...	...	...	...	...	...	...	...	3	
630 — <i>pulcherrima</i>	...	...	...	...	...	d. r.	...	...	6	
631 <i>Claytonia perfoliata</i>	5	...	159	N. America	...	ro.	¾	5-8	3	Good garden soil.
632 <i>Clematis flammula**</i>	13	35	162	France	hS	p. & y.	2	7-10	3	A handsome class of hardy Climbers, succeeding in almost any situation, but for general use it will be as well to attend to the following directions. Sow in a dry sheltered place, and plant out in sandy loam; if the soil has a calcareous tendency, it will be advantageous: they all look well against a wall or trellis-work.
633 — <i>integrifolia**</i>	...	...	...	Hungary	hP	...	2	6-8	3	
634 — <i>leptophylla**</i>	...	...	...	S. Europe	...	w.	...	...	6	
635 — <i>microphylla**</i>	...	...	...	...	...	...	...	...	6	
636 — <i>Viorna**</i>	...	...	...	N. America	hS	p.	15	5-6	6	
637 — <i>vitalba**</i>	...	...	...	England	...	w.	20	6-9	6	
638 — <i>viticella**</i>	...	...	...	Spain	...	p.	...	...	6	
639 — <i>rubra**</i>	...	...	...	gar. var.	...	r.	...	...	6	
640 <i>Cleome arborea</i>	15	61	89	Caraccas	gS	w.	8	6-8	3	Sow in hot-bed, and transplant out of doors in June. C. arborea requires warm greenhouse treatment.
641 — <i>speciosissima</i>	...	...	...	Carthage	...	...	2	...	3	
642 — <i>trachysperma</i>	...	...	...	Caraccas	hhA	...	...	7-8	3	



Scientific Name.		L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.								feet		s. d.	
643	<i>Clœme uniglandulosa</i>	15	61	89	S. America	hA	w.	2	7-8	3	Sow in hot-bed and transplant in June.
644	<i>viscosa</i>	...	...	...	Ceylon	...	flsh.	...	...	3	
645	<i>Clerodendron infortunatum</i>	14	59	187	...	sS	w.	3	7-9	1 0	
646	<i>lucidum</i>	...	...	...	India	...	s.	...	...	1 0	Sow in hot-bed, and transplant out of doors in June: desirable flowers.
647	<i>nutans</i>	...	...	...	E. Indies	...	...	6	11-12	1 0	
648	<i>odoratum</i>	...	...	...	Nepaul	...	r.	...	7-8	1 0	
649	<i>— album</i>	...	...	...	...	...	w.	6	...	1 0	C. Dampieri is one of the most magnificent blooming plants in cultivation. Sow in heat and grow in loam and peat.
650	<i>sp. ex Mauritio</i>	...	...	...	Mauritius	...	...	...	...	1 0	
651	<i>Clianthus magnificus</i>	17	45	132	N. Zealand	hhS	s.	4	5-6	6	
652	<i>Dampieri</i>	...	...	...	N. Holland	gS	s. & blk.	1	4-5	2 6	These are charming little plants, very beautiful for edgings, borders, pots or rock-work: sow on a little heat, with as much care as for Calceolaria, as the seed is very fine.
653	<i>puniceus</i>	...	...	...	N. Zealand	hhS	e.	4	5-6	1 6	
654	<i>Clintonia elegans</i>	16	40	87	Columbia	hhA	b.	½	6-9	3	
655	<i>pulchella</i>	...	...	...	...	...	b. w. y.	...	...	6	Splendid Greenhouse Climbers, which deserve much more extended cultivation than they have hitherto received. Soak the seeds in lukewarm water, then sow in sandy peat and loam in hot-bed. We believe the collection now offered to be the most extensive in the kingdom.
656	<i>— atropinerea</i>	...	...	...	gar. var.	...	d. grey	...	...	6	
657	<i>— atropurpurea</i>	...	...	...	...	...	d. p.	...	...	6	
658	<i>— alba</i> [flora	...	...	...	...	...	w.	...	...	6	Fine Climber: sow the seed edgeways.
659	<i>— azurea grandiflora</i>	...	...	...	...	...	b.	...	...	6	
660	<i>Clitoria coelestis</i> **	17	45	132	E. Indies	gS	...	6	7-8	6	
661	<i>gesnata</i> **	...	...	...	...	...	...	...	...	6	Very ornamental for pots or rockeries.
662	<i>— atrocærulea</i> **	...	...	...	...	...	d. b.	...	...	6	
663	<i>heterophylla</i> **	...	...	...	...	sA	b.	1	...	6	
664	<i>Ternatea</i> **	...	...	...	...	gS	...	6	...	6	Job's Tears: Ornamental Grass.
665	<i>— alba</i> **	...	...	...	...	...	w.	...	...	6	
666	<i>— grandiflora</i> **	...	...	...	...	...	...	...	...	6	
667	<i>— atrocærulea</i> **	...	...	...	...	...	d. b.	...	...	6	Well-known and universally admired Annuals; may be treated in every way the same as Calliopsis. C. bicolor and major are the prettiest and most generally used, but C. grandiflora is rather brighter in colour; all the varieties, however, are very desirable.
668	<i>— lilæea</i> **	...	...	...	...	...	li.	...	...	6	
669	<i>— pallida</i> **	...	...	...	...	...	l. b.	...	...	6	
670	<i>virginiana</i> **	...	...	...	America	...	b.	...	...	6	Sow in common garden soil: good for bees.
671	<i>Cobæa scandens</i> **	5	25	95	Mexico	hhP	p.	20	5-10	6	
672	<i>Cochlearia glastifolia</i>	15	60	103	S. Europe	hhP†	b.	¼	4-10	6	
673	<i>aeonlis</i>	...	...	...	...	...	...	¼	...	6	Noble Greenhouse plant.
674	<i>Coix lachryma</i>	21	38	123	E. Indies	sP	ap.	2	6-7	3	
675	<i>Collinsia bartsiaefolia</i>	14	59	175	California	hA	p.	½	5-8	3	
676	<i>— alba</i>	...	...	...	gar. var.	...	w.	1½	...	3	Usual Greenhouse treatment.
677	<i>bicolor</i>	...	...	...	California	...	w. & p.	...	5-9	3	
678	<i>— alba pura</i>	...	...	...	gar. var.	...	w.	...	...	3	
679	<i>— atrorubens</i>	...	...	...	...	...	d. r.	...	...	3	Pretty tuberous-rooted plants: if sown in heat and planted out of doors in June, will bloom the first year.
680	<i>— candidissima</i>	...	...	...	...	...	w.	...	...	6	
681	<i>— carnea</i>	...	...	...	...	...	flsh.	...	...	3	
682	<i>— major</i>	...	...	...	...	...	w. & b.	...	...	3	Lily of the Valley.
683	<i>heterophylla</i>	...	...	...	Columbia	...	p. & w.	...	7-9	3	
684	<i>grandiflora</i>	...	...	...	...	...	p. & b.	...	5-7	3	
685	<i>multicolor</i>	...	...	...	California	...	er. li. w.	...	5-9	3	Sow in well-drained pots.
686	<i>— marmorata</i>	...	...	...	gar. var.	...	mar.	...	...	3	
687	<i>Collomia coceinea</i>	5	25	154	Chili	...	s. & y.	...	6-11	3	
688	<i>græcilis</i>	...	...	...	America	...	...	2	...	3	Sow in common garden soil: good for bees.
689	<i>grandiflora</i>	...	...	...	N.W. Amer.	...	saff.	...	...	3	
690	<i>stenosiphon</i>	...	...	...	...	...	...	...	...	3	
691	<i>Colvillea racemosa</i>	17	45	132	Madagasear	gT	s.	45	4-5	6	Noble Greenhouse plant.
692	<i>Combrætum grandiflorum</i>	8	25	191	Sierra Leone	gS	s.	5	2-5	6	
693	<i>Commelina eclectis</i>	3	...	97	...	hPt	b.	1½	6-9	3	
694	<i>— alba</i>	...	...	...	...	...	w.	...	...	3	Pretty tuberous-rooted plants: if sown in heat and planted out of doors in June, will bloom the first year.
695	<i>— variegata</i>	...	...	...	...	...	var. lf.	...	...	3	
696	<i>Convallaria majalis</i>	6	...	177	Britain	...	w.	½	5-6	3	
697	<i>Convólulus althacoides</i>	5	...	100	Levant	hP	pk.	2	7-8	6	Very hardy; grow in any good garden soil.
698	<i>eantabrieus</i>	...	...	...	S. Europe	...	flsh.	1	3-9	6	
699	<i>Cordia angustifolia</i>	...	...	101	E. Indies	sT	y.	15	6-8	1 0	
700	<i>laevis</i>	...	...	...	Triinidad	...	r.	14	...	1 0	Sow in heat in peat.
701	<i>Sebestena</i>	...	...	...	W. Indies	sT	o.	15	...	1 0	
702	<i>Coris monspeliensis</i>	...	...	160	S. Europe	hhB	li.	½	7-9	6	
703	<i>Coronilla glauca</i>	17	45	132	France	gS	y.	2	5-9	6	Sow in well-drained pots.
704	<i>— junea</i>	...	...	...	...	hS	...	3	6-7	6	
705	<i>secundæca</i>	...	...	...	...	...	...	...	...	6	
706	<i>Cosmanthus fimbriatus</i>	5	25	81	N. America	hA	li. & w.	1	7-10	3	Sow in good garden soil.
707	<i>Cosmea atropurpurea</i>	19	55	98	gar. var.	hhA	d. p.	2	...	3	
708	<i>bipinnata</i>	...	...	...	Mexico	...	p.	...	...	3	
709	<i>lutea</i>	...	...	...	...	...	y.	...	10-11	3	Sow in slight hot-bed, and transplant in May.
710	<i>Cótula aurea</i>	...	54	...	Spain	hA	...	¼	7-9	3	
711	<i>Crêpis parviflora</i>	...	53	...	S. Europe	...	...	1	...	3	
712	<i>Crucianella stylösa</i>	4	25	167	Persia	hP†	p.	1½	6-8	3	Common garden soil.
713	<i>Cryptomeria japonica</i>	21	49	99	Japan	hT	ap.	100	5-7	6	
714	<i>Lobbi</i>	...	...	...	...	...	...	...	...	1 0	
715	<i>Cicnmis acutángulus</i>	...	...	104	E. Indies	hhA	y.	8	6-9	3	Ornamental Conifers: sow in cold pit in peat and loam.
716	<i>arádac</i>	...	...	...	...	...	...	...	...	3	

For culture see page 16.

Scientific Name.	L. O.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
717 <i>Cucumis dipsaceus</i>	21	49	104	Egypt	hhA	y.	9	6-9	3	A most interesting tribe of plants, remarkable for luxuriance and rapidity of growth, which, if the soil be rich, is truly marvellous. Treat the same as the Cucumber, and train against a wall or trellis, or in any way that may be desired. <i>C. flexuosus</i> , commonly known as the Snake Cucumber, is most singularly interesting in its fruit.
718 <i>flexuosus</i>	...	...	...	E. Indies	...	...	10	5-9	3	
719 <i>grossulariaefolius</i>	...	...	...	...	...	...	8	6-9	6	
720 <i>meduliferus</i>	...	...	...	...	...	...	...	...	3	
721 <i>Melo-chito</i>	...	...	...	...	...	...	4	5-9	3	
722 — <i>large fruits</i>	...	...	...	...	...	...	...	...	6	
723 — <i>red fruits</i>	...	...	...	...	...	...	...	...	6	
724 <i>Momordica</i>	...	...	...	...	...	...	...	...	6	
725 <i>perennis</i> [sa]	...	...	...	N. America	hhP	...	10	6-9	3	
726 <i>Cucurbita leucantha depressa</i>	...	...	...	gar. var.	hhA	...	...	...	3	
727 — <i>longissima</i>	...	...	...	...	...	...	...	...	3	The tribe of Cucurbita, or Gourds, are well known as producing some of the most curiously shaped of all fruits, and being, like the Cucumis, of extremely rapid growth, are very desirable for covering the trellis-work of arbours, &c. &c., the varied and fantastic forms of the fruit adding a peculiar charm to the luxuriance of the foliage.
728 <i>massue</i>	...	...	...	...	...	...	...	...	3	
729 <i>maliformis</i>	...	...	...	...	...	...	...	...	3	
730 <i>Melopepo variegata</i>	...	...	...	...	...	...	...	...	3	
731 — <i>maxima</i>	...	...	...	...	...	...	...	...	3	
732 <i>plâtre de Corse</i>	...	...	...	...	...	...	...	...	3	
733 <i>poire à poudre</i>	...	...	...	...	...	...	...	...	3	
734 <i>Siphon</i>	...	...	...	...	...	...	...	...	3	
735 <i>Cuphea Donkelaeri</i>	11	25	169	...	hhP	v. & y.	2	...	6	
736 <i>eminens</i>	...	...	...	Mexico (?)	...	s. & y.	1½	...	10	The Cuphea has long been deservedly admired as a bedding plant, in which capacity it has few superiors. Sow the seeds in a hot-bed, and harden off at the end of May, when they may be employed for beds the same season. <i>C. emiens</i> is a most beautiful species, with long tubular flowers of scarlet and yellow; it has a graceful branching habit, each branch clustering with blossoms. <i>C. oeymoides</i> and <i>zimpiani</i> are two very handsome bedding varieties.
737 <i>miniata</i>	...	...	...	S. America	...	ver.	2	...	6	
738 <i>ocymoides</i>	...	...	...	gar. var.	...	...	...	...	6	
739 <i>platycentra</i>	...	...	...	Mexico	...	s. w. p.	1½	7-10	6	
740 <i>purpurea</i>	...	...	...	...	hhA	div.	...	6-9	4	
741 <i>silcnoides</i>	...	...	...	Mexico	...	l. p.	...	...	4	
742 <i>strigillösa</i>	...	...	...	...	hhP	r. & y.	...	...	6	
743 <i>viscosissima</i>	...	...	...	S. America	hhA	p.	...	...	6	
744 <i>zimpiani</i>	...	...	...	gar. var.	...	d. v.	...	...	6	
745 <i>Cupressus australis</i>	21	49	99	Cashmere	hT	ap.	10	...	6	The Cypress of historic and Continental reputation, very ornamental, with a rich dark green foliage. Sow in pans or boxes in sandy loam in a cold pit, and transplant in summer.
746 <i>Goveniana</i>	...	...	...	California	...	...	20	...	6	
747 <i>glauca pendula</i>	...	...	...	E. Indies	...	...	50	...	6	
748 <i>pendula (funçbris)</i>	...	...	...	China	...	...	...	...	6	
749 — <i>glauca</i>	...	...	...	E. Indies	...	...	...	...	6	
750 <i>sempervirens</i>	...	...	...	Canada	...	...	20	5-6	6	
751 — <i>pyramidalis</i>	...	...	...	...	...	...	...	...	6	
752 <i>torulösa</i>	...	...	...	Himalaya	...	...	...	...	6	
753 — <i>elegans</i>	...	...	...	...	...	...	10	...	6	
754 <i>Cyclamen Coum</i>	5	25	160	S. Europe	hPb	r.	½	1-4	10	These are well-known most beautiful bulbous plants, universally admired. Sow in sandy loam, and keep at first in a cold pit.
755 <i>europæum</i>	...	...	...	Britain	...	l. r.	¾	8-9	10	
756 <i>persicum, mixed</i>	...	...	...	Cyprus	hhPb	div.	¾	2-4	10	
757 <i>Cyclanthëra pedata</i>	21	49	104	E. Indies	hhA	y.	10	7-9	6	
758 <i>Cynanchum nigrum</i>	5	26	73	S. Europe	hP	w.	3	6-8	6	
759 <i>Cynoglossum coelestinum</i>	...	...	81	N. India	hP	b. & w.	2	5-8	3	
760 <i>dauricum</i>	...	...	...	Crimea	...	w.	3	5-7	3	
761 <i>Cyperus alopecuroides</i>	3	26	123	Cape G. Hope	hhP	ap.	2	4-7	6	
762 <i>pátulus</i>	...	...	...	S. Europe	...	...	1	6-7	6	
763 <i>procërus</i>	...	...	...	...	...	...	...	...	6	Ornamental Grasses; will also grow under water.
764 <i>spectábilis</i>	...	...	...	...	...	...	...	...	6	
765 <i>Cytisus alpinus</i>	17	45	132	Europe	hT	y.	30	5-6	6	
766 <i>Attleyanus</i>	...	...	...	gar. var.	hS	...	5	7-8	6	
767 <i>chrysobötrys</i>	...	...	...	...	...	...	...	...	6	
768 <i>Laburnum</i>	...	...	...	Switzerland	hA	...	20	5-6	6	
769 <i>spinosus</i>	...	...	...	S. Europe	hS	...	2	...	6	
770 <i>triflorus</i>	...	...	...	Spain	...	...	...	...	6	
771 <i>Dahlia repens</i>	19	54	98	Mexico	hhA	p.	1	7-9	3	
772 <i>finest double</i>	...	...	...	...	hPb	div.	div.	9-11	10	No. 772, the well-known Dahlia: sow in sandy loam and leaf-mould, and plant out.
773 <i>Datura aurea</i>	5	25	178	Texas	hhA	y.	2	6-9	6	
774 <i>Bertoloni</i>	...	...	...	...	...	...	...	...	6	
775 <i>carthagenensis</i>	...	...	...	Carthage	hhA	w.	2	7-9	3	
776 <i>ceratoeaulon</i>	...	...	...	S. America	...	...	...	...	3	
777 <i>chlorantha fl. pl.</i>	...	...	...	Texas	...	y.	...	6-9	6	
778 <i>fastuösa fl. pl.</i>	...	...	...	Egypt	...	p.	3	...	3	
779 — <i>alba fl. pl.</i>	...	...	...	...	...	w.	...	...	3	
780 <i>ferox</i>	...	...	...	China	hA	...	...	7-9	3	
781 <i>humata</i>	...	...	...	...	...	...	...	...	3	These plants are particularly remarkable for the extraordinary size of their blooms. <i>D. Wrightii</i> is very handsome, delicate blue and white shaded. <i>D. chlorantha</i> has a magnificent large double golden-yellow flower, richly scented, and is altogether a very fine plant. Sow on brisk heat, pot off into loam and leaf-mould, and plant out at the end of June.
782 <i>levis</i>	...	...	...	Africa	hA	w.	2	6-9	3	
783 <i>Metel</i>	...	...	...	Asia	...	...	3	...	3	
784 <i>quercifolia</i>	...	...	...	Mexico	...	h.	...	7-10	3	
785 <i>Stramonium</i>	...	...	...	England	...	w.	3	6-9	3	
786 <i>Tátula</i>	...	...	...	N. America	...	b.	...	7-10	3	
787 <i>Wrightii (meteloides)</i>	...	...	...	Asia	hhA	w.	2	6-10	4	
788 <i>Daubentonia magnifica</i>	17	45	132	gar. var.	sS	s.	4	6-8	10	
789 <i>punicca</i>	...	...	...	Mexico	...	p.	...	5-9	10	
790 <i>tripetiana</i>	...	...	...	Brázil	...	s.	...	6-8	10	

Scientific Name.		L. Cl.	L. O.	N. O.	Native Country.	H. Dur.	Col. of Fl.	Hght. feet	M. of Flow.	Price.	GENERAL OBSERVATIONS.	
No.												
791	<i>Delphinium cardiopetalon</i>	13	28	162	Pyrenees	hA	b.	1	6-7	3	The tribe of <i>Delphinium</i> , to which the well-known Larkspur belongs, is one of the handsomest and most useful of all Perennials, and for large gardens is invaluable. <i>D. cardiopetalon</i> is a pretty dwarf variety, well suited for bedding. The varieties of <i>D. chinense</i> are almost too well known to need comment; but we offer this year several new varieties, which are quite distinct from the older sorts and very beautiful. <i>D. formosum</i> and <i>Hendersoni</i> are remarkably fine kinds, with very large and richly coloured blooms, and if sown early will flower the first year: both sorts are admirably adapted for beds. No. 801, <i>D. grandiflorum cœlestinum</i> , is a charming new variety of a delicate sky-blue colour. Sow in sandy loam in open border.	
792	— <i>chinense, blue</i>	...	...	...	Tartary	hP	...	2	7-10	3		
793	— album	...	...	...	gar. var.	...	w.	...	...	6		
794	— azureum, red spot	...	...	...	...	...	b. & r.	...	...	6		
795	— <i>cæruleum, red spot</i>	...	...	...	...	...	r. & b.	...	...	6		
796	<i>dasycarpum</i>	...	...	...	Caucasus	...	b.	4	7-8	3		
797	<i>Donkelaarii</i>	...	...	...	hybrid	...	...	2	6-8	3		
798	<i>elatum</i>	...	...	...	Siberia	...	...	6	6-9	3		
799	<i>formosum</i>	...	...	...	gar. var.	hP+	b. & w.	3	...	3		
800	<i>grandiflorum</i>	...	...	...	Siberia	hP	d. b.	2	...	3		
801	— <i>cœlestinum</i>	...	...	...	gar. var.	...	l. b.	...	...	6	Sow in sandy loam in open border. Very handsome Greenhouse Evergreen.	
802	<i>Hendersoni</i>	...	...	...	hybrid	...	b. & w.	3	...	6		
803	<i>hybridum</i>	...	...	...	...	...	b.	...	...	3		
804	<i>pietum</i>	...	...	...	gar. var.	...	b. & w.	...	...	3		
805	<i>triste</i>	...	...	...	Dahuria	...	br.	2	7-9	3		
806	<i>villosum</i>	...	...	...	Caucasus	...	b.	3	...	3		
807	<i>Wheeleri</i>	...	...	...	hybrid	...	...	...	...	6		
808	<i>Desmodium gyrans</i>	17	45	132	E. Indies	sB	p.	...	7-8	1 0		
809	<i>Dianthus atrorubens</i>	10	26	91	Italy	hP+	c.	1	7-9	4		The varieties of <i>Dianthus barbatus</i> are the well-known and universally grown Sweet Williams, and the seed we offer of them has been saved from the finest collections in Europe.
810	— <i>barbatus</i>	...	...	...	Germany	hP	div.	1½	6-10	6		
811	— scarlet	...	...	...	gar. var.	...	s.	...	...	6		
812	— double	...	...	...	...	...	div.	...	...	6		
813	— Hunt's superb	...	...	...	...	...	...	...	...	6		
814	— dark crimson	...	...	...	...	...	d. c.	...	...	6		
815	— striped	...	...	...	...	...	stri.	...	...	6		
816	<i>caucasicus</i>	...	...	...	Caucasus	hP+	p.	1	6-9	6		
817	<i>Caryophyllus</i>	...	...	...	England	hP	div.	...	...	1 0		
818	— choicest double	...	...	...	gar. var.	...	...	...	...	2 6	... ..	
819	— Flake	...	...	...	...	...	...	...	...	2 6	The tribe of <i>Dianthus</i> is incomparably the most useful of all Perennials, and for variety and beauty ranks second to none; for no flower can surpass, in delicacy of marking and form and deliciousness of fragrance, the richly-hued <i>Carnation</i> or <i>Picotée</i> , which has always been one of the most esteemed of Florists' flowers. <i>D. atrorubens</i> is of a beautiful dark-red colour, and well adapted for beds. <i>D. Caryophyllus</i> and its varieties are the much-admired <i>Carnations</i> and <i>Picotées</i> , for the seed of which our House has been celebrated for more than twenty-six years: and this year our varieties are, if possible, finer than ever. <i>D. chinensis</i> and varieties are known as Indian Pinks, perhaps one of the most useful class of plants existing. The dwarf varieties No. 835 to 839 are quite new, and are really invaluable additions to this already celebrated tribe of plants. <i>D. Heddewigi</i> and <i>lacinatus</i> are new sorts from Japan, and have a multitude of blooms averaging 3 inches in diameter, and of the most brilliant colours. <i>D. moschatus</i> fl. pl. is the double Garden Pink. <i>D. deltoideus</i> , <i>giganteus</i> , and <i>collinus</i> are good for rockeries. General mode of treatment for <i>Dianthus</i> may be taken as follows. Sow the seed in spring in gentle heat or in light rich soil, lightly covered, in a situation where it can be protected from bright sun or dashing rain until fairly up: during the summer, transplant to a well-prepared border, placing the plants about a foot apart, and let them have a slight protection during winter. Sweet Williams, if sown early, even out of doors, will bloom the first season.	
820	— Bizarre	...	...	...	...	...	...	...	...	2 6		
821	— Tree or perpetual	...	...	...	...	...	...	...	...	2 6		
822	— yellow	...	...	...	...	...	...	...	...	2 6		
823	— punctatus	...	...	...	England	...	...	...	...	1 0		
824	— choicest	...	...	...	gar. var.	...	...	...	...	2 6		
825	— white ground	...	...	...	...	...	...	...	...	2 6		
826	— yellow	...	...	...	...	...	...	...	...	2 6		
827	<i>chinensis</i>	...	...	...	China	hP+	...	...	...	6		
828	— albus	...	...	...	gar. var.	...	w.	...	...	4		
829	— albo-marginatus	...	...	...	...	...	mar.	...	...	4		
830	— albo-pictus	...	...	...	...	...	...	...	...	4		
831	— atropurpureus	...	...	...	...	...	...	...	...	4		
832	— Heddewigi	...	...	...	Japan	...	div.	...	...	6		
833	— imperialis	...	...	...	gar. var.	...	...	...	...	6		
834	— lacinatus fl. pl.	...	...	...	Japan	...	...	...	...	6		
835	— nanus albus, fl. pl.	...	...	...	gar. var.	...	w.	½	...	6		
836	— albo-striatus	...	...	...	...	...	stri.	...	...	6		
837	— atropurpureus	...	...	...	...	...	d. p.	...	...	6		
838	— purpureus	...	...	...	...	...	p.	...	...	6		
839	— rubro-striatus	...	...	...	...	...	stri.	...	...	6		
840	— superb mixed	...	...	...	...	...	div.	1	...	6	Very pretty. Sow in gentle heat and transplant.	
841	<i>Carthusianus</i>	...	...	...	hybrid	...	...	2	...	6		
842	<i>collinus</i>	...	...	...	Hungary	hP	w.	¾	7-9	6		
843	<i>corsicus</i>	...	...	...	Corsica	...	pk.	2	6-8	6		
844	<i>deltoideus</i>	...	...	...	Britain	hP	flsh.	¾	6-10	6		
845	— albus	...	...	...	...	...	w.	...	...	6		
846	— ruber	...	...	...	...	...	r.	...	...	6		
847	<i>Garnierianus</i>	...	...	...	hybrid	hP	div.	1	...	6		
848	<i>giganteus</i>	...	...	...	Greece	...	p.	3	7-8	6		
849	<i>guttatus</i>	...	...	...	Caucasus	...	r.	1	6-10	6		
850	<i>hispanicus, mixed</i>	...	...	...	Spain	...	div.	...	7-10	3	Commonly known as Foxglove, a very useful class of Perennials.	
851	<i>hybridus corymbosus</i>	...	...	...	hybrid	...	...	...	...	6		
852	— double blood-red	...	...	...	...	...	d. r.	...	...	6		
853	<i>latifolius splendens</i>	...	...	...	...	...	div.	2	...	6		
854	<i>moschatus</i>	...	...	...	Europe	...	w. & r.	1	...	6		
855	— double garden Pink	...	...	...	gar. var.	...	...	...	...	1 0		
856	<i>plumarius</i>	...	...	...	Europe	...	w. & p.	...	...	6		
857	<i>pulchellus</i>	...	...	...	Siberia	...	w. & r.	...	...	6		
858	<i>superbus</i>	...	...	...	Europe	...	w.	2	7-9	6		
859	— nanus	...	...	...	...	...	div.	1	...	6		
860	<i>Veitchii</i>	...	...	...	hybrid	...	c. & w.	1½	...	6	Very pretty. Sow in gentle heat and transplant. Commonly known as Foxglove, a very useful class of Perennials.	
861	<i>Didiscus cæruleus</i>	5	26	181	N. Holland	hA	b.	...	6-9	6		
862	— pilosus	...	...	...	...	...	...	...	...	6		
863	<i>Digitalis aurea</i>	14	59	175	Greece	hP+	gold.	3	7-9	6		
864	<i>ferruginea</i>	...	...	...	Italy	...	br.	4	...	3		



<i>Scientific Name.</i>	L.	O.	N.O.	Native Country.	H. & Dnr.	Col. of Fl.	Hght.	N. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet		d.	
865 <i>Digitális gloxinoides</i>	14	59	175	gar. var.	hpt	div.	3	7-9	3	Usually called Foxglove; a showy and handsome class of Perennials, look fine on banks and open spaces in woods. Sow in open border and transplant, when they will bloom the same season.
866 <i>grandiflora</i>	...	...	...	Switzerland	...	li. y.	4	...	3	
867 <i>lutea</i>	...	...	...	France	...	y.	2	...	3	
868 <i>nivedens</i>	...	...	...	hybrid	...	...	...	...	3	
869 <i>purpurea</i>	...	...	...	Britain	hpt	p.	4	...	3	
870 <i>— alba</i>	...	...	...	...	...	w.	...	...	3	Sow on heat, and transplant. Handsome Shrubs for Greenhouse decoration. Sow on heat, and transplant. Mixture of sand, loam, and peat. Sow in good light soil.
871 <i>— punctata</i>	...	...	...	...	...	spot.	...	...	3	
872 <i>Dillwynia cinerea</i>	10	25	132	N. S. Wales	hhS	y.	2	3-7	6	
873 <i>Diosma alba</i>	5	...	168	Cape G. Hope	gS	w.	...	...	6	
874 <i>capitata</i>	...	...	...	...	...	p.	...	5-6	6	
875 <i>Diospyros virginiana</i>	25	52	108	N. America	ltT	y. & g.	20	6-7	4	Good garden soil. Sow in loam and peat. American Cowslip, very beautiful.
876 <i>Dipsacus ferrox</i>	4	25	107	S. Europe	hB	p.	3	7-8	6	
877 <i>laciniaatus</i>	...	...	...	Germany	...	...	6	...	6	
878 <i>Diplachne fascicularis</i>	3	26	123	N. America	hA	ap.	2	7-9	3	
879 <i>Dipteracanthus spectabilis</i>	14	59	63	Peru	sS	pa. b.	...	8-9	6	
880 <i>Dodecatheon Meadia</i>	5	25	160	Virginia	hP	div.	3	4-6	10	Handsome Greenhouse Climbers: the flowers of <i>D. melanophthalmus</i> are of a violet rose colour. Previous to sowing the seeds, soak them in warm water.
881 <i>elegans</i>	...	...	...	...	...	...	...	...	10	
882 <i>Dolichos Lablab nana**</i>	17	45	132	E. Indies	gA	...	6	7-9	6	
883 <i>lignosus**</i>	...	...	...	...	...	...	12	...	3	
884 <i>melanophthalmus**</i>	...	...	...	...	...	v.	...	...	10	
885 <i>martineensis**</i>	...	...	...	...	...	...	...	...	6	Light rich soil. Various kinds of Sweet-smelling Balm. Sow in sandy soil.
886 <i>purpureus**</i>	...	...	...	...	...	p.	...	...	6	
887 <i>Draba borealis</i>	15	39	103	S. Europe	hP	w.	3	...	6	
888 <i>Dracoecephalum canescens</i>	14	58	130	Georgia	...	p.	1	7-8	3	
889 <i>moldavicum</i>	...	...	...	Moldavia	hA	b. & w.	2	6-7	3	
890 <i>— album</i>	...	...	...	...	...	w.	...	...	3	Sow in peat and loam in hot-house. Splendid plant, with long spikes of flowers. Ornamental Thistles; well adapted for Shrub-beries: sow in garden soil and transplant.
891 <i>Duranta Ellisia</i>	...	59	187	W. Indies	sS	b.	6	7-8	6	
892 <i>Plumieri</i>	...	...	...	S. America	...	...	15	8-9	6	
893 <i>Ebenus cretica</i>	16	45	132	Candia	hhS	pk.	13	6-9	6	
894 <i>Echinops bannaticus</i>	19	57	98	Hungary	hP	w.	3	7-9	3	
895 <i>cornigerus</i>	...	...	...	Russia	...	...	2	7-8	3	Handsome Climbers: sow in hot-bed. Sow in hot-bed, and grow in sandy loam and peat. Hardy varieties, sow in good garden soil.
896 <i>exaltatus</i>	...	...	...	Europe	...	...	...	...	3	
897 <i>Echites paniculata</i>	5	25	69	E. Indies	sS	...	10	6-9	10	
898 <i>Echium candicans</i>	...	...	81	Madeira	gS	b.	3	5-6	3	
899 <i>ferocissimum</i>	...	...	...	...	...	...	6	5-7	6	
900 <i>salmanticum</i>	...	...	...	Spain	hP	pk.	1	5-6	6	Ornamental Grasses; light and graceful in growth; very useful for summer or winter bouquets.
901 <i>violaceum</i>	...	...	...	...	...	v.	3	...	6	
902 <i>Eleusine corocana</i>	3	26	123	E. Indies	hA	ap.	2	7-9	3	
903 <i>indica</i>	...	...	...	...	...	...	1	...	6	
904 <i>oligostachya</i>	...	...	...	Egypt	...	...	...	...	6	
905 <i>sp. ex China (Fortune)</i>	...	...	...	China	...	...	...	...	6	Musk-scented. Sow in mild heat. Same culture as the Erica.
906 <i>Elymus Caput-Medusæ</i>	...	...	...	S. Europe	...	...	...	...	3	
907 <i>hystrix</i>	...	...	...	...	...	...	...	...	3	
908 <i>giganteus</i>	...	...	...	...	...	...	...	...	3	
909 <i>Engelmannia pionatifida</i>	19	53	98	Chili	...	y.	3	...	6	
910 <i>Eutelia arborescens</i>	13	25	133	N. Zealand	gT	w.	20	5-6	6	Ornamental Grasses; succeed in any good garden soil.
911 <i>Epæris, finest mixed</i>	5	...	109	Australia	gS	div.	div.	div.	2	
912 <i>Eragrostis eylandiiflora</i>	3	26	123	S. Europe	hA	ap.	13	6-7	3	
913 <i>elegans</i>	...	...	...	Italy	...	...	2	7-9	3	
914 <i>megastachya</i>	...	...	...	S. Europe	...	...	13	7-8	3	
915 <i>nanaquensis</i>	...	...	...	China	...	...	1	...	3	Fine Grass, similar to the Pampas Grass.
916 <i>Erianthus Ravennæ</i>	...	...	...	S. Europe	hP	...	5	6-9	10	
917 <i>Erica arborea</i>	8	25	110	...	hhS	w.	...	2-6	6	
918 <i>baccans</i>	...	...	...	Cape G. Hope	gS	p.	13	4-6	6	
919 <i>calycina minor</i>	...	...	...	...	...	...	2	5-7	6	
920 <i>coccinea</i>	...	...	...	...	...	s.	13	1-12	6	These well-known handsome plants are commonly called Heaths. Prepare the pots carefully: if water is needed, use a very fine rose, or, rather, flood the pot by pouring the water gently on a shell; when moveable, prick off six round a small pot, and keep close until growing; then, at all times, give plenty of air, unless when frosty: use fibry sandy peat with little bits of charcoal and sand-stone to keep the soil open, and be particular with the drainage. The European kinds will grow out of doors in sandy peat and loam, and make fine beds and edgings.
921 <i>eouferta</i>	...	...	...	...	...	w.	...	2-10	6	
922 <i>lateralis</i>	...	...	...	...	...	v.	...	3-7	6	
923 <i>margaritacea</i>	...	...	...	...	...	w.	...	5-9	6	
924 <i>multiflora</i>	...	...	...	...	...	p.	...	5-8	6	
925 <i>Plukenetti</i>	...	...	...	...	...	v.	...	4-7	6	
926 <i>pyrolæflora</i>	...	...	...	...	...	w.	...	5-9	6	
927 <i>ramentacea</i>	...	...	...	...	...	d. r.	...	5-12	6	
928 <i>tubiflora</i>	...	...	...	...	...	pk.	2	4-7	6	
929 <i>— species nova</i>	...	...	...	...	...	...	...	...	6	
930 <i>multiflora</i>	...	...	...	France	hS	flb.	...	6-11	6	
931 <i>— var. tubiflora</i>	...	...	...	...	...	...	...	...	6	
932 <i>striata</i>	...	...	...	S. Europe	...	p.	...	8-11	6	
933 <i>Erigeron Beyrichi</i>	19	51	98	...	...	...	1	6-8	6	
934 <i>Karwinskiænum</i>	...	...	...	...	...	...	...	...	6	
935 <i>Erinus alpinus</i>	14	26	175	Pyrenees	hP	b.	13	3-4	6	Very pretty for rockeries. Ornamental for Greenhouse.
936 <i>Eriobotrya japonica</i>	12	...	166	Japan	gT	w.	15	...	6	
937 <i>Eryngium aquifolium</i>	5	26	181	Spain	hP	b.	1	7-8	6	
938 <i>planum</i>	...	...	...	Europe	...	l. b.	3	7-9	3	Grow in any good garden soil.

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
939 <i>Eryngium rigidum</i> [num	5	26	184	Europe	hP	b.	1	7-8	6	Common garden soil.
940 <i>Erysimum arkansa-</i>	15	60	103	Arkansas	hP+	l. y.	1½	5-10	6	<i>E. arkansanum</i> has fine heads of golden blossom,
941 <i>Barbarea variegatum</i>	...	...	...	Britain	...	y.	...	5-8	3	like a dwarf Perennial Phlox. <i>E. Barbarea</i>
942 <i>Perowskianum</i> [dron	...	...	...	Palestine	hA	o.	...	6-9	3	has ornamental foliage.
943 <i>Erythrina corallodend-</i>	17	45	132	W. Indies	sT	s.	20	5-6	10	These superb Shrubs have magnificent bunches
944 <i>crista galli</i>	...	...	...	Brazils	gS	...	...	5-7	10	of crimson scarlet blossom, and are generally
945 <i>Hendersoni</i>	...	...	...	gar. var.	...	...	...	5-6	10	known as the Coral Trees. <i>E. crista galli</i> will
946 <i>lawrifolia</i>	...	...	...	S. America	...	...	10	8-10	10	succeed in borders in the summer, S. of London.
947 <i>Eschscholtzia californica</i>	13	29	149	California	hP+	y.	1	7-10	3	The pretty bright-yellow and orange blossoms
948 <i>compacta</i>	...	...	...	...	...	y. & or.	...	...	3	of the <i>Eschscholtzia</i> are to be met with in
949 <i>crœca</i>	...	...	...	...	...	y.	...	...	3	almost every garden. <i>E. tenuifolia</i> is deli-
950 <i>— alba</i>	...	...	...	gar. var.	...	w.	...	...	3	cately formed and specially adapted for rock-
951 <i>tenuifolia</i>	...	...	...	California	...	y.	...	...	3	eries and edgings.
952 <i>Eucalyptus diversifolia</i>	12	25	142	N. S. Wales	gT	w.	30	5-8	6	Soak the seeds previous to sowing them.
953 <i>Eucharidium cœneum</i>	8	...	146	N. America	hA	p.	1	4-9	3	} Pretty cheerful-looking Annuals, growing freely in any good garden soil.
954 <i>grandiflorum</i>	...	...	...	...	...	...	...	...	3	
955 <i>— album</i>	...	...	...	gar. var.	...	w.	...	...	6	
956 <i>— roseum</i>	...	...	...	...	...	ro.	...	...	6	
957 <i>Eucnida bartonioides</i>	18	48	135	America	hA	y.	...	6-8	6	Very pretty pot plant.
958 <i>Eugenia caryophyllata</i>	12	25	142	E. Indies	sT	g.	10	3-7	10	} Fine plants : sow in loam and peat.
959 <i>Jambos</i>	...	...	...	...	...	g. & y.	20	2-7	10	
960 <i>Euonymus japonicus</i>	5	25	165	Japan	hS	g.	6	7-9	6	} Ornamental Shrubs : grow in rich garden soil.
961 <i>tingens</i>	...	...	...	...	hS	...	...	6-7	6	
962 <i>Eupatorium aromaticum</i>	19	53	98	N. America	hP	w.	4	...	6	} Easily cultivated hardy Perennials : succeed best in sandy loam.
963 <i>corymbosum</i>	...	...	...	Europe	...	...	...	...	6	
964 <i>Fraseri</i>	...	...	...	Carolina	gS	...	1½	...	6	} Sow in gentle heat, and grow in fibrous sandy loam.
965 <i>Euphorbia erioclada</i>	11	28	112	S. Europe	hP	ap.	1	4-5	10	
966 <i>Myrsinites</i>	...	...	...	...	...	...	...	4-6	10	
967 <i>Eurybia argophylla</i>	19	54	98	N. Holland	gP	...	...	...	6	
968 <i>lirata</i>	...	...	...	...	...	...	...	...	6	} Usual greenhouse treatment.
969 <i>ramulosa</i>	...	...	...	...	...	w.	2	7-10	6	
970 <i>Entresthus latifolius</i>	6	25	74	N. S. Wales	sP	pa. p.	3	6-7	6	} Sow in heat.
971 <i>Eutoca multiflora</i>	5	...	81	California	hA	pk.	1½	5-7	3	
972 <i>viscida</i>	...	...	...	...	...	d. b.	1	...	3	} Free-flowering Annuals : grow in good garden soil.
973 <i>— albo-striata</i>	...	...	...	gar. var.	...	stri.	...	...	3	
974 <i>Wrangeliana</i>	...	...	...	California	...	b.	...	...	3	} Common garden soil.
975 <i>Fedia cornucopie</i>	2	...	186	S. Europe	...	r.	...	6-7	3	
976 <i>scorpioides</i>	...	...	...	...	...	...	...	...	3	
977 <i>Felicia angustifolia</i>	19	54	98	C. G. Hope	hS	pa. b.	6	5-7	6	
978 <i>Fenzlia dianthiflora</i>	5	25	81	California	hA	ro. li.	4	6-10	10	} Sow in heat, and transplant.
979 <i>Festuca glauca</i>	3	26	123	S. Europe	hP	ap.	1	6-7	6	
980 <i>rigida</i>	...	...	...	...	...	...	...	...	6	} Ornamental Grasses. <i>F. glauca</i> has bright silvery foliage.
981 <i>viridis</i>	...	...	...	...	...	...	...	...	6	
982 <i>Filices, finest mixed</i>	24	62	114	div.	sP	div.	div.	div.	10	Stove Ferns, in fine variety.
983 <i>Fiornia pulchella</i>	3	26	123	...	hA	ap.	1	6-7	6	Ornamental Grass.
984 <i>Feniculum vulgare</i>	5	...	184	Britain	hP	y.	6	7-8	3	Good garden soil.
985 <i>Frœca appendiculata</i>	8	29	117	Chili	hP	ro. c.	2½	...	3	Very singular herbaceous plant.
986 <i>Frenela macrosta-</i>	21	49	99	V. D.'s Land	hS	ap.	3	...	6	} Fine hardy Conifers : sow in loam and peat.
987 <i>triquetra</i> [chya	...	...	...	...	...	...	...	...	6	
988 <i>Fuchsia, choicest</i>	8	25	171	hybrid	hPb	div.	div.	1-12	10	Saved from finest named varieties.
989 <i>Fumaria sempervirens</i>	17	41	116	...	hB	...	...	5-6	6	Good garden soil.
990 <i>Gaillardia aristata</i>	19	55	98	N. America	hP+	y.	1	7-10	3	} Showy and universally admired Perennials, flowering the first year, and among the gayest ornaments of summer flower beds. <i>G. hybrida grandiflora</i> is the largest and handsomest : and the dwarf habit of <i>G. picta nana</i> renders it of great service in mixed borders. <i>G. picta</i> and its varieties should be raised on a little heat, and not turned out of doors before the middle of May : so long as the soil be light, its component parts are immaterial.
991 <i>bicolor</i>	...	...	...	Carolina	...	o.	2	...	3	
992 <i>hybrida grandiflora</i>	...	...	...	hybrid	...	c. & y.	...	7-9	6	
993 <i>picta</i>	...	...	...	Louisiana	hP+	...	...	...	3	
994 <i>— albo-marginata</i>	...	...	...	gar. var.	...	c.w. & y.	...	...	4	
995 <i>— cœcinea</i>	...	...	...	...	...	s.	...	...	4	
996 <i>— Josephus</i>	...	...	...	...	...	o.	...	...	4	
997 <i>— lutea</i>	...	...	...	...	...	y.	...	...	4	
998 <i>— nana</i>	...	...	...	...	...	c. & y.	1	...	4	
999 <i>— splendidissima</i>	...	...	...	...	...	s. & y.	2	...	6	
1000 <i>pinnatifida</i>	...	...	...	N. America	hP+	y.	...	6-8	3	} Good free-flowering Annuals for Shrubberies.
1001 <i>Richardsoni</i>	...	...	...	...	hP	o.	1½	5-10	3	
1002 <i>Wellsiana</i>	...	...	...	...	...	y. & r.	...	...	3	} Pretty pea-shaped flowers : grow freely in good garden soil.
1003 <i>Galga officinalis</i>	17	45	132	Spain	...	b.	4	6-9	3	
1004 <i>— alba</i>	...	...	...	gar. var.	...	w.	...	...	3	
1005 <i>— lilacina</i>	...	...	...	...	...	li.	...	...	3	
1006 <i>Galinsoga trilobata</i>	19	54	98	Peru	hA	o.	½	8-10	3	Good garden soil.
1007 <i>Gardœnia betonicoides</i>	14	58	130	Mexico	hP	p.	...	6-10	6	Sweet-scented Perennial.
1008 <i>Gaura Lindheimeria</i>	8	25	146	Texas	hA	w. & p.	2	7-8	3	} Very useful and ornamental Shrubs for Greenhouse, Conservatory, or Flower Garden decoration : handsome both in bloom and foliage.
1009 <i>Genista bracteolata</i>	17	45	132	S. Europe	hS	y.	...	6-9	6	
1010 <i>canariensis</i>	...	...	...	Canaries	...	...	...	5-9	3	
1011 <i>candicans</i>	...	...	...	Spain	...	...	...	4-7	6	
1012 <i>cephedroides</i>	...	...	...	Sardinia	...	...	...	6-9	6	

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
1013 <i>Genista floribunda alba</i>	17	45	132	S. Europe	hS	y.	3	6-9	6	Sow the seeds in shallow pans and plant out when small; or it is preferable to sow the seeds when they are intended to bloom: the tender varieties should be sown under glass and grown in pots.
1014 <i>foliösa</i>	...	...	...	...	...	...	...	...	6	
1015 <i>mantica</i>	...	...	...	...	...	...	...	6-8	6	
1016 <i>monosperma</i>	...	...	...	...	hS	w.	4	6-7	6	
1017 <i>rhodophëna</i>	...	...	...	...	...	g.	2	5-7	6	
1018 <i>Scorpius</i>	...	...	...	...	hS	...	4	3-4	6	Very useful Perennials. <i>G. acaulis</i> , which has large deep-blue Gloxinia-shaped flowers, if sown in deep rich loam, makes a splendid edging in early summer: if the small kinds make interesting rock plants.
1019 <i>Spachiana</i>	...	...	...	...	...	...	...	...	6	
1020 <i>Gentiana acaulis</i>	5	25	118	Wales	hP	d. b.	1	3-5	3	
1021 <i>aselepiädea</i>	...	...	...	Austria	...	...	1	7-8	3	
1022     — <i>alba</i>	...	...	...	...	...	w.	...	...	3	
1023 <i>cruciata</i>	...	...	...	N. America	...	b.	1½	...	3	Splendid Hothouse bulbous plants.
1024 <i>hybrida</i>	...	...	...	Switzerland	...	y. & r.	...	...	3	
1025 <i>lutea</i>	...	...	...	Alps	...	y.	4	6-7	3	
1026 <i>Septemfida</i>	...	...	...	Persia	...	d. b.	1	7-8	3	
1027 <i>Gesneria, finest mix'd</i>	14	59	120	S. America	sPb	div.	div.	1-12	1 0	
1028 <i>Geum coccineum</i>	12	35	166	Chili	hP	s.	2	6-9	4	Very showy, long-blooming, hardy plants: sow in sandy loam, and give slight protection at first.
1029     — <i>atrosanguineum</i>	...	...	...	...	...	d. s.	...	...	6	
1030     — <i>macrophyllum</i>	...	...	...	...	...	...	...	...	6	
1031     — <i>superbum</i>	...	...	...	...	...	...	...	...	4	
1032     — <i>japonicum</i>	...	...	...	...	...	...	...	...	6	
1033 <i>Gilia achilleifolia</i>	5	25	81	California	hA	p.	1½	8-10	3	Very pretty dwarf Annuals: may be sown at any time, and will bloom in almost any situation: look well around Standard Roses on lawns or grass plots; also grow well in plots, and may be placed in a rockery. <i>G. tricolor</i> and its varieties are the prettiest. <i>G. achilleifolia alba</i> is one of the purest white flowers, and is quite new.
1034     — <i>alba</i>	...	...	...	gar. var.	...	w.	...	...	3	
1035 <i>capitata</i>	...	...	...	N. America	...	b.	2½	6-10	3	
1036     — <i>alba</i>	...	...	...	gar. var.	...	w.	...	...	3	
1037     — <i>major</i>	...	...	...	...	...	b.	...	...	3	
1038 <i>nivälis</i>	...	...	...	N. California	...	w.	3	6-11	3	
1039 <i>sp. ex California</i>	...	...	...	...	...	b.	1½	...	3	
1040 <i>tricolor</i>	...	...	...	California	...	3-col.	1	7-9	3	
1041     — <i>alba</i>	...	...	...	...	...	w.	...	...	3	
1042     — <i>rosea</i>	...	...	...	...	...	ro.	...	...	3	
1043 <i>Gladiolus, finest mixed</i>	3	...	128	hybrid	hPb	div.	3	...	1 0	Sow on heat in light soil.
1044 <i>Globularia Alcyonum</i>	4	...	121	S. Europe	hP	p.	2	8-10	6	Good garden soil.
1045 <i>Gloxinia, choicest mixed</i>	14	59	120	hybrids	hPb	div.	div.	...	1 0	Hothouse flowers of great beauty.
1046 <i>Godetia bifrons</i>	8	25	146	...	hA	p. & c.	2	8-9	3	...
1047 <i>insignis</i>	...	...	...	N. America	...	spot.	1½	7-10	3	All the varieties of Godetia are well deserving of the most extensive cultivation, indeed no garden for Annuals should be without them; their profuseness of bloom and delicate tints of colour have long rendered them universal favourites. <i>G. roseo-alba</i> has a bright crimson spot on each petal, which has a peculiarly pretty effect. All the Godetias will grow in any good garden soil; but their effect is greatly enhanced if they are treated in the manner given for Calliopsis.
1048 <i>lépida</i>	...	...	...	California	...	pk.	...	8-9	3	
1049 <i>Lindleyana</i>	...	...	...	N. America	...	p.	...	6-11	3	
1050 <i>purpurea</i>	...	...	...	...	...	...	1	5-8	3	
1051 <i>quadrivulnera</i>	...	...	...	...	...	pk.	1½	...	3	
1052 <i>Romanzovi</i>	...	...	...	...	...	p.	1	...	3	
1053 <i>rosea alba</i>	...	...	...	Nepaul	...	r. & w.	...	...	3	
1054     — <i>alba pura</i>	...	...	...	gar. var.	...	w.	...	...	3	
1055 <i>rubicunda</i>	...	...	...	California	...	pa. r.	2	6-8	3	
1056 <i>Schemini</i>	...	...	...	...	...	...	...	...	3	
1057 <i>tenella</i>	...	...	...	Chili	...	p.	1	4-8	3	Usual stove treatment.
1058 <i>tenuifolia</i>	...	...	...	...	...	...	1	6-9	3	
1059 <i>venösa</i>	...	...	...	...	...	ro.	...	...	3	
1060 <i>vininea</i>	...	...	...	California	...	p.	3	...	3	
1061 <i>Willdenövi</i>	...	...	...	...	...	ro.	...	...	3	
1062 <i>Gomphrena procumbens</i>	5	25	64	Quito	sP	w.	...	6-7	6	
1063 <i>Gonospermum elegans</i>	19	54	98	Britain	hPt	y.	2	7-8	6	
1064 <i>Goodia latifolia</i>	16	45	132	V. D.'s Land	gS	...	3	4-5	6	
1065 <i>mediaginea [noides]</i>	...	...	...	...	...	...	...	...	6	
1066 <i>Grammanthes gentia-</i>	5	30	176	C. G. Hlope	hA	s.	3	7-10	6	Very neat, pretty, and effective dwarf Annuals: sow on hot-bed, and transplant into good garden soil.
1067     — <i>cinnabarina</i>	...	...	...	gar. var.	...	c.	...	...	6	
1068     — <i>lilacina</i>	...	...	...	...	...	li.	...	...	1 0	
1069     — <i>lutea</i>	...	...	...	C. G. Hlope	...	y.	...	...	6	
1070 <i>Grindelia robusta</i>	19	51	98	Mexico	hhlP	...	2	7-9	6	Good garden soil.
1071 <i>Grislea tomentosa [des]</i>	8	25	169	E. Indies	sS	r.	3	5-6	6	Usual stove treatment.
1072 <i>Gnitterezia gymnospermol-</i>	...	...	...	...	hA	...	...	...	3	Usual Fern culture. True Gold Fern.
1073 <i>Gymnogramma chrysophyl.</i>	24	62	114	E. Indies	sP	ap.	1	...	1 0	
1074 <i>Gynerium argenteum</i>	22	37	123	S. America	hP	...	20	7-9	1 0	
1075 <i>ascendens</i>	...	...	...	...	...	...	...	...	1 0	
1076 <i>Gypsophila elegans</i>	10	26	91	Crimea	hA	w. & pk.	2	6-9	3	Very pretty hardy Annuals: will grow in any good garden soil. <i>G. muralis</i> is adapted for rock-work.
1077     — <i>rosea</i>	...	...	...	gar. var.	...	ro.	...	...	3	
1078 <i>muralis</i>	...	...	...	Germany	...	pk.	1	...	3	
1079 <i>Steveni</i>	...	...	...	Siberia	hP	w.	4	6-7	3	
1080 <i>viscosa</i>	...	...	...	Enrope	hA	...	...	...	3	Handsome Greenhouse Shrub.
1081 <i>Habrothamnus elegans</i>	5	25	178	Mexico	gS	e.	5	...	6	
1082 <i>Hackia brachyrhyncha</i>	19	54	98	...	hA	y.	1	7-10	6	
1083 <i>Hebenstreitia tenuifolia</i>	14	59	187	C. G. Hlope	gS	w.	...	5-6	6	
1084 <i>Hedy'chium Gardnerianum</i>	1	25	174	E. Indies	sP	y.	7	6-8	6	Usual stove culture.
1085 <i>Hemina salicifolia</i>	11	...	169	Mexico	...	...	5	8-9	6	Good garden soil.
1086 <i>Helcium Douglassi</i>	19	54	98	California	hA	...	3	6-8	3	



<i>Scientific Name.</i>	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	N. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
1087 <i>Helènum tenuifolium</i>	19	54	98	California	hA	y.	3	6-8	3	Good garden soil.
1088 <i>Helianthemum canescens</i>	13	26	95	S. Europe	hP	r.	3	5-7	3	Sow in light soil.
1089 <i>Helianthus argyrophyllus</i>	19	55	98	Texas	hA	pa. y.	5	7-10	3	Silver-leaved and Californian Sunflower : grow
1090 <i>californicus</i> [chum	...	...	...	California	...	d. y.	6	...	3	in any garden soil.
1091 <i>Heliehrissum brachyrhyn-</i>	...	54	...	...	hhA	y.	1	...	6	Everlasting Flowers. These flowers are pecu-
1092 <i>bracteatum</i>	...	...	...	N. Holland	...	...	...	...	3	liarily interesting and desirable as dried
1093 <i>— album</i> [imur	...	...	...	...	...	w.	...	...	3	specimens : handsome bouquets may be
1094 <i>compositum max.</i>	...	...	...	gar. var.	...	div.	...	...	6	formed of them for indoor decoration during
1095 <i>macranthum</i>	...	...	...	N. Holland	...	w.	2	...	3	the winter, if the blooms be gathered when
1096 <i>— nanum</i>	...	...	...	gar. var.	...	r.	1	...	6	upon the point of opening : treatment the
1097 <i>— rubrum</i>	...	...	...	...	...	...	2	...	6	same as for Calliopsis. The Greenhouse
1098 <i>monströsum</i>	...	...	...	N. Holland	...	div.	1	6-8	6	varieties should be sown under glass, and
1099 <i>speciosissimum</i>	...	...	...	Cape G. Hope	gS	w.	8	7-8	6	grown in a mixture of loam and peat in the
1100 <i>Stachelina</i>	...	...	...	...	...	...	1½	1-12	6	greenhouse.
1101 <i>Helioiphila arabioides</i>	15	61	103	...	hhA	b.	3	6-7	4	Very pretty little plants for bedding or edging :
1102 <i>dissecta</i>	...	...	...	...	...	...	1	...	4	sow under glass, and transplant : H. arabi-
1103 <i>trifida</i>	...	...	...	...	...	...	3	...	4	oides is the best.
1104 <i>Helioipsis scabra</i>	19	54	98	N. America	hP	y.	5	7-9	6	Good garden soil.
1105 <i>Heliotropium corymbosum</i>	5	25	81	gar. var.	hhP+	d. b.	1	6-10	4	
1106 <i>grandiflorum</i>	...	...	...	...	...	b.	...	...	3	
1107 <i>— Anna Turrell</i>	...	...	...	...	...	v.	...	...	6	The Heliotrope, from its fragrance, is very
1108 <i>— Roi des Noirs</i>	...	...	...	...	...	blk.	...	...	6	generally admired, and with Geraniums and
1109 <i>peruvianum</i>	...	...	...	Peru	...	li.	2	...	4	Calceolarias forms a good bedding plant.
1110 <i>Triomphe de Liège</i>	...	...	...	gar. var.	...	d. b.	1	...	4	Sow in heat and transplant.
1111 <i>Voltaireanum</i>	...	...	...	...	...	...	...	...	4	
1112 <i>Heracleum giganteum</i>	15	46	181	Siberia	hB	w.	12	6-7	3	Good for Shrubberies and game covers.
1113 <i>Wilhelm</i>	...	...	...	...	...	...	...	...	3	
1114 <i>Hermannia anguläris</i>	16	40	83	Cape G. Hope	gS	y.	3	4-5	6	Sow on heat.
1115 <i>Hibiscus africanus</i>	16	35	137	Africa	hA	w. & dkl.	2	6-10	3	Stove varieties, sow in heat, and grow in
1116 <i>calisirens</i>	...	...	...	...	...	...	...	...	3	sandy mellow loam in hothouse in winter.
1117 <i>palustris</i>	...	...	...	N. America	hP	pk.	3	7-9	6	Greenhouse kinds, sow under glass, and
1118 <i>— roseus</i>	...	...	...	...	...	ro.	...	...	6	keep indoors from October to May. Hardy
1119 <i>syriacus</i>	...	...	...	Syria	hS	p.	8	8-9	6	shrubby varieties, sow in April in cold pit,
1120 <i>virginicus</i>	...	...	...	Virginia	hP	r.	2	7-9	6	and protect for the first season, then plant
1121 <i>Cameroni</i>	...	...	...	Madagascar	sS	ro.	1	6-7	6	where wanted, giving them good rich deep
1122 <i>coccineus</i>	...	...	...	...	...	e.	3	...	6	loam. Annuals and Perennials, sow about
1123 <i>collinus</i>	...	...	...	E. Indies	...	...	...	...	6	the beginning of April in good garden soil ;
1124 <i>giganteus</i>	...	...	...	...	hP	...	...	...	6	but to make the most of the annual kinds,
1125 <i>Harrisoni</i>	...	...	...	...	sS	...	...	...	6	such as africanus, sow about the middle of
1126 <i>heterophyllus</i>	...	...	...	N. S. Wales	...	w.	6	8-9	6	March, in heat, under glass, and transplant
1127 <i>immutabilis</i>	...	...	...	E. Indies	...	...	...	...	6	good plants, nine inches apart, in the begin-
1128 <i>insignis</i>	...	...	...	...	...	...	10	7-9	6	ning of May : either in a bed or in rows, we
1129 <i>Lindleyi</i>	...	...	...	India	...	p.	6	12-1	6	know of few plants that will surpass H.
1130 <i>macrophyllus</i>	...	...	...	E. Indies	...	y.	12	6-7	6	africanus when the sun shines upon it. All
1131 <i>Mémihot</i>	...	...	...	China	gS	...	4	7-9	6	the varieties of Hibiscus are deserving of
1132 <i>moschentos</i>	...	...	...	N. America	gP	p.	2	8-10	6	extensive cultivation, and it is rarely that a
1133 <i>— albus</i>	...	...	...	...	...	w.	...	...	6	greenhouse of any pretensions will be found
1134 <i>— roseus</i>	...	...	...	...	...	ro.	...	...	6	without them : a good collection may be
1135 <i>Thunbergi</i>	...	...	...	...	gS	y.	3	6-8	6	seen in bloom at the Royal Botanic Gardens
1136 <i>vitifolius</i>	...	...	...	E. Indies	sB	...	2	7-10	6	at Kew.
1137 <i>Heracleum verbascifolium</i>	19	53	98	Enrope	hP	...	...	6-7	3	Good garden soil.
1138 <i>Holcus saccharatus</i>	23	51	123	China	hhA	ap.	12	7-8	3	Chinese Sugar Grass, for ornament and fodder.
1139 <i>10 var. separate</i>	...	...	...	...	...	...	...	...	3	
1140 <i>Hordeum jubatum</i>	3	26	123	N. America	hA	...	...	6-8	6	Ornamental Grass.
1141 <i>Himnea elegans</i> [riaefolia	19	53	98	N. S. Wales	hhP+	r.	6	6-10	6	Fine graceful plant.
1142 <i>Hunnemannia funa-</i>	13	25	149	Mexico	...	y.	1	6-9	6	Blooms like Tulipa sylvestris.
1143 <i>Hyacinthus amethystinus</i>	6	...	74	S. Europe	hPh	b.	3	4-5	6	Light sandy soil.
1144 <i>Hymenänthera tenuiflorum</i>	5	...	124	N. America	hS	y.	6	...	6	Good garden soil.
1145 <i>Hymenösis californica</i>	19	54	98	California	hA	...	1	7-10	3	Common garden soil.
1146 <i>Hyoey'annus pictus</i>	5	25	178	Britain	hB	y. & b.	14	6-7	3	
1147 <i>Hypérieum olympicum</i>	19	53	98	...	hP	y.	1½	6-8	6	Pretty Perennials : very free growing.
1148 <i>montanum</i>	...	...	...	...	...	...	...	...	6	
1149 <i>Hibëris lagascioria</i>	15	60	103	Spain	hA	w.	1	6-7	3	Candytufts ; very pretty in early Spring : sow
1150 <i>semperlorens</i>	...	...	...	Candia	hP	...	3	4-6	3	in any good garden soil.
1151 <i>sempervirens</i>	...	...	...	...	...	...	...	...	3	
1152 <i>Ilex japonica</i>	4	29	127	Japan	hT	ap.	3	...	6	Mixed soil of loam and peat.
1153 <i>Impatiens glanduligera</i>	5	25	76	England	hA	y.	2	6-9	3	
1154 <i>Incavillea sinensis**</i>	14	59	79	China	hS	o.	20	7-9	6	Fine Climber : same culture as Calampelis.
1155 <i>Indigofera australis</i>	17	45	132	Botany Bay	gS	pk.	3	3-6	6	Handsome Greenhouse ornaments. I. tinctoria
1156 <i>coccinea endecaphylla</i>	...	...	...	Sierra Leone	...	s.	4	7-8	6	is the Indigo of commerce. Sow in hot-bed,
1157 <i>eytisoides</i>	...	...	...	Cape G. Hope	...	r.	2	...	6	and grow in peat and loam in greenhouse.
1158 <i>Dosua</i>	...	...	...	Nepaul	...	ro.	1	4-7	6	The Red Spider should be carefully looked
1159 <i>filifolia</i>	...	...	...	Cape G. Hope	...	p.	2	7-8	6	after ; may be destroyed by Parmenter's Pre-
1160 <i>macrocarpa</i>	...	...	...	...	...	...	...	...	6	paration : see page 112.

<i>Scientific Name.</i>	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght. feet	N. of Flow.	Price.	GENERAL OBSERVATIONS.
No.									s. d.	
1161 <i>Indigofera rosea</i>	17	45	132	E. Indies	gS	ro.	4	6-8	6	For description, &c., of the <i>Indigofera</i> , see preceding page.
1162 <i>Roxburghi</i>	...	...	...	...	...	...	...	...	6	
1163 <i>tinctoria</i>	...	...	...	...	...	pk.	3	6-9	6	
1164 <i>violacea</i>	...	...	...	...	...	v.	5	...	6	
1165 <i>Inopsidium acaule</i>	15	60	103	S. Europe	hhP	b.	4	4-10	6	Charming plant for pots, vases, or rockeries.
1166 <i>Ipomæa Bona Nox**</i>	5	25	100	W. Indies	hhA	w.	10	7-10	3	
1167 <i>chryseides**</i>	...	...	...	...	gP	b.	4	6-10	10	Convolvulus. Of all flowers in general cultivation, the <i>Ipomæa</i> ranks pre-eminent for delicate and intrinsic beauty: the brilliant and varied hues of its many species and varieties are marvellously beautiful, and their fine foliage and graceful forms render them inseparable adornments for every Greenhouse, Conservatory, Hothouse, or general garden throughout the kingdom. As <i>all</i> the plants belonging to this tribe are handsome, it is a work of great difficulty to select any for particular recommendation; we will, however, specify a few that are the most marked in their characteristics. <i>I. rubro-cerulea</i> is perhaps unequalled for the size and beauty of its blossoms of a brilliant sky-blue colour. <i>I. Quamoclit</i> , <i>I. coccinea</i> , and their varieties would mingle admirably with the well-known Canary Creeper. <i>I. hederacea</i> and varieties are very beautiful; but the most interesting variety of late introduction is <i>I. limbata elegantissima</i> , which has a five-pointed star of intense violet-blue, with a broad margin of pure white. Such kinds as <i>digitata</i> , <i>grandiflora</i> , and <i>rubro-cerulea</i> require strong heat to raise seedlings, but will afterwards grow well in a moderate greenhouse. Greenhouse varieties of this charming tribe do not require much heat: Half-hardy kinds should be sown on slight hot-bed, and transplanted out of doors in May: light rich loamy soil is suitable for all.
1168 <i>digitata**</i>	...	...	...	W. Indies	...	p.	10	8-10	6	
1169 <i>ficifolia**</i>	...	...	...	Buenos Ayres	gPb	b.	3	10-12	6	
1170 <i>grandiflora**</i>	...	...	...	E. Indies	gA	w.	8	9-12	10	
1171 <i>Hardingi**</i>	...	...	...	hybrid	gPt	p.	10	5-6	10	
1172 <i>Leari**</i>	...	...	...	S. Europe	gA	p. v.	9	...	10	
1173 <i>macrorrhiza**</i>	...	...	...	Guinea	gP	pk.	10	7-8	10	
1174 <i>macrifolia**</i>	...	...	...	...	gA	w.	15	7-9	6	
1175 <i>reniformis**</i>	...	...	...	N. Holland	...	y. & v.	20	...	6	
1176 <i>rubro-cerulea**</i>	...	...	...	Mexico	gP	sky h.	8	9-11	6	
1177 — <i>alba**</i>	...	...	...	...	...	w.	...	...	10	
1178 <i>speciosa ex Pegu</i>	...	...	...	Pegu	...	...	...	...	10	
1179 <i>tuberosa**</i>	...	...	...	W. Indies	...	pa. y.	10	7-9	10	
1180 <i>tyrianthina**</i>	...	...	...	California	...	d. p.	...	7-10	10	
1181 <i>Willdenowii**</i>	...	...	...	E. Indies	...	p.	...	6-8	6	
1182 <i>coccinea**</i>	...	...	...	W. Indies	hhA	s.	...	6-9	3	
1183 — <i>lutea**</i>	...	...	...	...	...	y.	...	...	3	
1184 <i>Ferrandiana**</i>	...	...	...	hybrid	...	...	...	...	3	
1185 <i>hederacea**</i>	...	...	...	N. America	...	b.	...	7-10	3	
1186 — <i>superba**</i> [**]	...	...	...	gar. var.	...	b. & w.	...	...	6	
1187 — — <i>atroviolacea</i>	...	...	...	...	...	d. v. & w.	...	...	6	
1188 — — <i>lilacina**</i>	...	...	...	...	...	li. & w.	...	...	6	
1189 <i>limbata**</i>	...	...	...	Java	...	v. & w.	2	...	3	
1190 — <i>elegantissima**</i>	...	...	...	gar. var.	...	d. p. & w.	3	...	6	
1191 <i>Nil**</i>	...	...	...	America	...	l. b.	10	7-9	3	Most beautiful plants for beds, with long spikes of scarlet and orange flowers. Sow in well-drained pots in fibry loam: keep in greenhouse in winter, and plant out in June.
1192 — <i>grandiflora**</i>	...	...	...	gar. var.	...	b.	...	...	3	
1193 <i>purpurea**</i>	...	...	...	America	...	div.	6	...	3	
1194 — <i>atroviolacea**</i>	...	...	...	gar. var.	...	d. v.	...	...	3	
1195 — <i>Burridgi**</i>	...	...	...	...	...	e.	...	...	3	Very pretty, long-blooming plants, good for beds. Sow in heat, prick out, harden off, and plant out in May.
1196 — <i>Dicksoni**</i>	...	...	...	...	...	b.	...	...	3	
1197 — <i>rosea**</i>	...	...	...	...	...	ro.	...	...	3	
1198 <i>Quamoclit**</i>	...	...	...	N. India	...	s.	...	...	3	
1199 — <i>alba**</i>	...	...	...	...	...	w.	...	...	3	Good garden soil.
1200 — <i>rosea**</i>	...	...	...	...	...	ro.	...	...	6	
1201 <i>Ipomopsis Beyrichi</i>	...	...	81	Carolina	fp†	s. & y.	3	8-9	3	
1202 <i>elegans</i>	...	...	...	...	...	s.	...	...	3	
1203 <i>picta</i>	...	...	...	...	...	s. & y.	...	...	3	Usual greenhouse treatment.
1204 — <i>aurantiaca</i>	...	...	...	...	...	or.	...	...	3	
1205 — <i>superba</i>	...	...	...	...	...	s.	...	...	3	
1206 <i>Isotoma axillaris</i>	...	...	87	N. Holland	hhP	b.	1	6-9	4	
1207 <i>petraea</i>	...	...	...	...	...	r.	...	...	4	Magnificent stove plants: sow in hot-bed, and grow in peat and loam with plenty of bottom heat.
1208 — <i>carulea</i>	...	...	...	...	...	b.	...	...	4	
1209 <i>Isopyrum fumarioides</i>	13	35	162	Siberia	bA	w. & g.	...	6-7	3	
1210 <i>Isodia alata</i>	19	53	98	...	gS	w.	2	4-9	6	
1211 <i>Ixora Bandhuca</i>	4	25	167	E. Indies	sS	flsh.	3	7-8	6	Jessamine. Sow under glass and transplant.
1212 <i>barbata</i>	...	...	...	...	...	s.	...	...	6	
1213 <i>coccinea</i>	...	...	...	...	...	...	4	8-9	6	
1214 <i>parviflora</i>	...	...	...	...	...	w.	20	8-10	6	
1215 <i>undulata</i>	...	...	...	...	...	...	4	6-8	6	Juniper Tree: well-known useful Shrubs. Sow in gentle heat, and plant into pots when sufficiently large: very good for Shrubberies, &c.
1216 <i>Jasminum fruticosum**</i>	2	...	129	S. Europe	hS	y.	3	4-10	6	
1217 <i>Juniperus ly'cia</i>	22	49	99	...	...	ap.	10	5-6	6	
1218 <i>macrocarpa</i>	...	...	...	Greece	...	...	...	...	6	
1219 <i>Oxycedrus</i>	...	...	...	S. France	...	...	...	...	6	Handsome Tree.
1220 <i>squamosa</i>	...	...	...	Nepaul	...	...	5	...	6	
1221 <i>virginiana</i>	...	...	...	...	...	...	...	...	6	
1222 <i>Jnsticia multiflora</i>	2	25	63	E. Indies	sS	pk.	2	7-8	6	
1223 <i>Kaulfussia amelloides</i>	19	51	98	Cape G. Hope	hA	b.	3	...	3	Dwarf hardy Annuals: good garden soil.
1224 — <i>alba</i>	...	...	...	gar. var.	...	w.	...	...	3	
1225 — <i>rosea</i>	...	...	...	...	...	ro.	...	...	3	
1226 <i>Kennedya apetala**</i>	17	45	132	N. Holland	gS	ap.	6	6-7	6	
1227 <i>andomoriensis**</i>	...	...	...	...	...	p.	...	...	6	These Climbers are among the most striking of Greenhouse ornaments, and deserve more extensive cultivation than has hitherto been extended to them, and few plants are more serviceable for Conservatory decoration; their bright colours impart a most cheerful appearance during the early part of the season, and if trained round fanciful wire shapes a peculiarly interesting effect is produced.
1228 <i>bimaculata**</i>	...	...	...	N. S. Wales	...	...	3	6-8	6	
1229 <i>Comptoniana**</i>	...	...	...	N. Holland	...	b.	12	3-8	6	
1230 <i>digitata**</i>	...	...	...	Swan River	...	...	6	4-5	10	
1231 <i>eximia**</i>	...	...	...	Java	...	s. & y.	...	5-6	10	
1232 <i>longifolia**</i>	...	...	...	Swan River	...	r.	...	1-5	6	
1233 <i>longiracemosa**</i>	...	...	...	N. S. Wales	...	pk. & o.	3	6-7	6	
1234 <i>Lindleyana**</i>	...	...	...	...	...	v.	...	...	10	

Scientific Name.	L.	C.	N.O.	Native Country.	H. & Dur.	Col. of Fl.	Hght. feet	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.										
1235 <i>Kennedyia mariana</i> **	17	45	132	N. S. Wales	gS	s.	4	6-7	6	General instructions for sowing:—Steep the seeds in warm water for six hours, sow in sandy peat and loam, and place in hot-bed in April: harden off the seedlings by degrees, in order that they may stand in the Greenhouse or Conservatory during summer.
1236 <i>Makoyana</i> **	...	...	...	...	...	b.	3	6-8	1 0	
1237 <i>Marryatæ</i> **	...	...	...	Australia	...	s.	4	6-7	6	
1238 <i>monophylla alba</i>	...	...	...	...	...	w.	...	...	6	
1239 <i>ovata</i> **	...	...	...	N. Holland	...	p.	6	5-8	6	
1240 — <i>nova</i> **	...	...	...	...	...	...	...	...	1 0	
1241 — <i>alba</i> **	...	...	...	...	...	w.	...	...	6	
1242 <i>prostrata</i> **	...	...	...	...	...	s.	...	...	6	
1243 <i>rotundifolia</i> **	...	...	...	N. S. Wales	...	...	5	6-9	6	
1244 <i>rubicunda</i> **	...	...	...	...	...	r.	10	3-8	6	
1245 <i>Sieberiana</i> **	...	...	...	...	...	...	...	...	6	...
1246 <i>Sieboldti</i> **	...	...	...	...	...	...	...	...	6	...
1247 <i>Knaulia orientalis</i>	4	25	107	Levant	hA	...	1	6-9	6	Good garden soil.
1248 <i>Köhrenteria paniculata</i>	8	...	172	China	hT	y.	10	7-8	6	
1249 <i>Lagerstræmia indica</i>	13	...	169	E. Indies	sS	p.	6	8-10	6	Splendid Stove-plant: usual hothouse treatment.
1250 <i>regia</i>	...	...	...	...	...	r.	12	...	6	
1251 <i>Lagurus ovatus</i>	3	26	123	Guernsey	hA	ap.	1	6-7	3	Ornamental Grass (Hare's-tail).
1252 <i>Lantana, finest French</i>	14	59	187	divers	hhS	div.	div.	div.	1 0	Beautiful bedding plants: sow in hot-bed, and transplant.
1253 <i>Impératrice Eugénie</i>	...	...	...	gar. var.	...	...	2	6-8	6	The finest Climber in cultivation.
1254 <i>Lapageria rosea</i> **	6	25	177	Chiloe	gP	ro.	10	9-3	2 6	
1255 <i>Lasiopetalon solanaceum</i>	5	...	83	N. Holland	gS	w.	3	4-7	6	Usual greenhouse treatment.
1256 <i>Lasthenia californica</i>	19	54	98	California	hA	y.	...	5-10	3	Common garden soil.
1257 <i>Lathyrus azureus</i> **	17	45	132	...	...	b.	4	5-8	4	All the varieties of Lathyrus are very ornamental, and being hardy and of quick growth, they are of great use in covering trellises or in the formation of arbours.
1258 <i>latifolius</i> **	...	...	...	England	hP	pk.	6	6-9	3	
1259 — <i>albus</i> **	...	...	...	...	...	w.	...	...	4	
1260 <i>mutabilis</i> **	...	...	...	Siberia	...	pa. r.	4	6-8	4	
1261 <i>Laurus Cerasus</i>	12	25	166	Levant	hS	w.	12	4-5	3	All the varieties of Laurus are very ornamental: grow best in a mixture of loam and peat.
1262 <i>colchica</i>	9	...	131	...	...	...	...	...	3	
1263 <i>indica</i>	...	...	...	...	hT	...	...	...	3	
1264 <i>lusitanica</i>	...	...	...	S. Europe	...	...	...	...	3	
1265 <i>nobilis</i>	...	...	...	Italy	...	g. & w.	15	...	3	Fragrant plants: sow on heat, and transplant.
1266 <i>Lavandula Spica</i>	14	58	130	S. Europe	hP	li.	2	7-9	6	
1267 <i>Stœchas</i>	...	...	...	...	hS	...	1½	5-9	4	Good garden soil.
1268 <i>Lavatera arborescens</i>	8	48	137	Britain	hhP	p.	6	7-10	6	
1269 <i>armeniaca</i>	...	...	...	...	hP	...	...	...	6	Common garden soil.
1270 <i>maritima</i>	...	...	...	S. Europe	hhS	w.	2	4-6	6	
1271 <i>Lebeckia cytisoides</i>	17	45	132	Cape G. Hope	gS	pk.	3	4-7	6	A most useful class of hardy Annuals. L. densiflorus albus is one of the purest of white flowers, and blooming in masses is admirable for beds. L. aureus is an extremely pretty dwarf plant of a rich golden colour, suited for pots, rock-work, or edgings. All the varieties are of easy cultivation, growing freely in any good garden soil.
1272 <i>Leptandra virginica</i>	2	25	175	Virginia	hP	w.	5	7-10	3	
1273 <i>Leptosiphon androsæceus</i>	3	...	81	California	hA	div.	1	6-10	3	
1274 — <i>albus</i>	...	...	...	...	...	w.	...	...	3	
1275 — <i>lilæinus</i>	...	...	...	...	...	li.	...	...	3	
1276 <i>aureus</i>	...	...	...	...	...	o.	...	...	4	
1277 <i>densiflorus</i>	...	...	...	...	...	p.	1	...	3	
1278 — <i>albus</i>	...	...	...	gar. var.	...	w.	...	...	3	
1279 — <i>nanus</i>	...	...	...	...	...	p.	...	...	3	
1280 <i>luteus</i>	...	...	...	California	...	y.	...	...	3	
1281 <i>new dwarf hybrids</i>	...	...	...	hybrid	...	div.	...	...	1 0	Fine Greenhouse plants.
1282 <i>Leptorhynchus squamatus</i>	...	...	...	...	...	...	...	...	6	
1283 <i>Leptospermum flavescens</i>	12	25	142	N. S. Wales	gS	w.	5	5-7	6	Ornamental Greenhouse plants. Sow on heat, and transplant.
1284 <i>lanigerum</i>	...	...	...	...	...	...	...	...	6	
1285 <i>Leucanthemum Ierianum</i>	...	...	...	...	...	...	...	...	6	Good for shrubberies.
1286 <i>Leucodendron decorum</i>	4	25	161	Cape G. Hope	gT	y.	3	...	6	
1287 <i>plumosum</i>	...	...	...	...	...	...	4	6-8	6	Sow on heat in light soil.
1288 <i>Ligustrum japonicum</i>	2	...	145	Japan	hS	w.	...	5-6	3	
1289 <i>Lilium colchicum</i>	6	...	133	China?	gPh	...	...	7-10	6	Elegant and slightly fragrant Annuals, very free-blooming, contrasting well with Nemophilas: good for beds, clumps, or edgings: easy of cultivation, growing freely in any good garden soil.
1290 <i>Martagon</i>	...	...	...	...	hPb	div.	2	5-6	6	
1291 <i>Limnanthes alba</i>	10	...	134	California	hA	w.	...	6-10	3	Very pretty flowers. L. bipartita and varieties are among the prettiest Annuals grown, and when in full bloom resemble small compact bushes of blossoms: the tender varieties may be sown under glass, and the others in the open borders.
1292 <i>Douglasi</i>	...	...	...	...	...	y. & w.	...	...	3	
1293 <i>grandiflora</i>	...	...	...	...	...	...	...	...	3	
1294 <i>rosea</i>	...	...	...	...	...	ro.	...	...	3	
1295 <i>sulphurea odorata</i>	...	...	...	...	...	sul.	...	...	3	
1296 <i>aurea nova</i>	...	...	...	...	...	y.	...	...	3	
1297 <i>Linaria bipartita</i>	14	59	175	Barbary	hhA	p.	...	6-9	3	
1298 — <i>alba</i>	...	...	...	gar. var.	...	w.	...	...	3	
1299 — <i>splendida</i>	...	...	...	...	...	var.	...	...	6	
1300 <i>Hendersoni</i>	...	...	...	...	...	...	1	...	3	
1301 <i>Perezi</i>	...	...	...	...	...	...	...	...	3	...
1302 <i>purpurea</i>	...	...	...	S. Europe	hP	p.	...	7-9	3	
1303 <i>pycnocæa</i>	...	...	...	...	...	...	...	...	3	
1304 <i>reflexa</i>	...	...	...	...	...	...	...	...	3	
1305 <i>triorithophora</i>	...	...	...	Portugal	hhP	p.	...	6-9	3	
1306 <i>spartea</i>	...	...	...	Spain	hA	y.	...	6-10	3	
1307 <i>speciosa</i>	...	...	...	Barbary	hhP	p.	...	...	3	
1308 <i>triphylla</i>	...	...	...	Sicily	hA	y. & p.	1	...	3	



Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
1309 <i>Lindheimera texana</i>	19	54	98	Texas	hA	y.	2	8-10	3	Good garden soil.
1310 <i>Linum alpinum</i>	5	40	91	Austria	hP	b.	1	7-8	6	
1311 <i>campanulatum</i>	...	...	...	Europe	...	y.	1	6-8	6	
1312 <i>flavum</i>	...	...	...	Austria	hP	...	...	...	6	Well-known Annuals and Perennials. L. scarlet is one of the handsomest Annuals ever introduced, in brilliancy of colour being surpassed by none; it is also much to be recommended for its long duration in bloom. L. flavum and luteum corymbiflorum are two beautiful golden-yellow varieties, much to be recommended. Sow in pans in light mould.
1313 <i>grandiflorum</i>	...	...	...	S. Europe	hP	...	1	...	3	
1314 — album	...	...	...	...	...	w.	...	...	3	
1315 — scarlet	...	...	...	Algeria	hA	c.	...	6-10	4	
1316 <i>Lewisi</i>	...	...	...	N. America	hP	b.	3	6-8	3	
1317 — variegatum	...	...	...	gar. var.	...	var.	...	...	3	
1318 <i>luteum corymbiflorum</i>	...	...	...	Crimea	hA	y.	1	6-7	4	
1319 <i>narbonense</i>	...	...	...	S. France	hP	b.	2	5-7	6	
1320 <i>perenne</i>	...	...	...	England	hP	p.	3	6-8	3	
1321 — album	...	...	...	...	...	w.	...	...	3	
1322 <i>Lippia purpurea</i>	14	59	187	Mexico	gS	r.	...	6-7	6	Usual greenhouse treatment.
1323 <i>Lisianthus Russellianus</i>	5	25	118	...	gA	p.	...	10-12	10	Splendid Greenhouse Annual.
1324 <i>Loisa aurantiaca**</i>	18	48	135	Tueenman	hA	a.	20	7-10	3	Beautiful Climbing Plants, suitable for covering trellis or wire-work: sow in hot-bed and plant out.
1325 <i>Herberti**</i>	...	...	...	...	...	s.	6	...	3	
1326 <i>tricolor</i>	...	...	...	Chili	hA	y.	2	6-9	3	A most elegant and useful genus of dwarf plants of easy culture, well adapted for bedding, edging, pots, or rockeries; Lobelias, in fact, are employed as universally in the general Summer garden as Scarlet Geraniums, to beds of which they form a neat and effective edging: the varieties of L. Erinus are generally used for this purpose; yet by some the varieties of L. ramosa are preferred, which, though larger in bloom, are neither so elegant nor compact. L. speciosa is the finest of all, from its intense dark-blue colour with a clear white spot and its dark-coloured foliage. The varieties of L. gracilis are the best adapted for rock-work, pots, or suspended baskets to droop over. The seed of Lobelia, being very small, cover very slightly when sown: sow in hot-bed, prick out, and gradually harden off: if grown in pots, let them be well trained. A light rich soil is suitable for all the varieties.
1327 <i>Lobelia campanulata</i>	5	25	87	Cape G. Hope	hP	b.	1	6-10	4	
1328 <i>Erinus</i>	...	...	...	...	...	...	...	...	4	
1329 — compacta	...	...	...	gar. var.	...	d. b.	1	...	6	
1330 — grandiflora	...	...	...	...	...	...	...	...	4	
1331 — marmorata	...	...	...	...	...	b. & w.	...	...	4	
1332 — maxima	...	...	...	...	...	b.	...	...	4	
1333 — oculata alba	...	...	...	...	...	w. & b.	...	...	4	
1334 — ramosoides	...	...	...	...	...	...	...	...	4	
1335 — rosea	...	...	...	...	...	ro.	...	...	4	
1336 — speciosa	...	...	...	...	...	d. b.	...	...	6	
1337 <i>formosa</i>	...	...	...	N. S. Wales	...	...	...	...	6	
1338 <i>gracilis</i>	...	...	...	...	hA	b.	trai	7-10	3	
1339 — alba	...	...	...	gar. var.	...	w.	...	...	3	
1340 — erecta	...	...	...	...	...	l. b.	1	...	6	
1341 — rosea nova	...	...	...	...	...	ro.	trai	...	4	
1342 <i>heterophylla</i>	...	...	...	V. D.'s Land	...	d. b.	1	...	6	
1343 <i>propinqua</i>	...	...	...	hybrid	hP	s.	4	6-10	6	
1344 <i>ramosa</i>	...	...	...	Swan River	...	d. b.	2	7-10	4	
1345 — alba	...	...	...	gar. var.	...	w.	...	...	4	
1346 — nana	...	...	...	...	...	d. b.	1	...	4	
1347 — rubra	...	...	...	...	...	r.	2	...	4	
1348 — triquetra	...	...	...	...	...	d. b.	1	...	6	
1349 <i>Lonicea balcanica</i>	...	...	90	S. Europe	hS	st.	10	4-5	6	Sow in good friable soil.
1350 <i>Lopezia coronata</i>	1	...	146	Mexico	hA	r.	1	7-9	3	Good garden soil.
1351 <i>miniata</i> [dens**]	...	...	...	...	gS	p.	3	9-11	6	Usual greenhouse treatment.
1352 <i>Lophospermum scan-</i>	14	59	175	...	hP	...	10	6-10	6	Extremely handsome Climbers. Sow in hot-bed in light sandy loam, prick off, pot and re-pot, and by the end of May transfer to cool Greenhouse, Conservatory, or favourable positions in the garden.
1353 — Cliftoni**	...	...	...	hybrid	...	d. ro.	...	...	6	
1354 — Hendersoni**	...	...	...	...	...	ro.	...	...	6	
1355 — Jacksoni**	...	...	...	...	...	...	...	...	6	
1356 — Rhodochiton**	...	...	...	Mexico	...	s.	...	...	10	
1357 <i>Lötus cytisoides</i>	17	45	132	S. Europe	hA	y.	1	7-8	4	Very pretty pea-shaped flowers. L. corniculatus multiflorus is a profuse bloomer, fine yellow blossoms for borders or rockeries. L. Jacobaeus is exceedingly neat and pretty as a pot plant, the flowers being almost an ivory-black.
1358 <i>corniculatus</i>	...	...	...	Britain	hP	...	1	6-8	6	
1359 <i>hirsutus</i>	...	...	...	...	hP	...	2	...	4	
1360 <i>Jacobaeus</i>	...	...	...	C. Verd Isles	hS	blk.	1	1-12	3	
1361 — luteus	...	...	...	...	...	y.	...	...	3	
1362 <i>rectus</i>	...	...	...	S. Enrope	hP	flsh.	3	6-9	4	Lupine. This class of plants is perhaps more generally known and cultivated than any other, and merits the favour accorded to it. L. hybridus insignis and superbus are really fine plants with long spikes of richly coloured blossoms. L. Menziesi has perhaps the handsomest spike of bloom of all, the plant when well grown forming a candelabrum with beautiful sulphur-coloured flowers. L. subcarneus is exceedingly rich in colour, viz. ultramarine blue, crimson, and purple, and is worthy of more extended cultivation. L. nanus, nanus albus, and affinis, from dwarf habit, are peculiarly suited for beds, in which position they show well. L. Hartwegi and its varieties are good in habit and colour.
1363 <i>sericeus</i>	...	...	...	Mussooree	hA	y.	1	7-8	6	
1364 <i>suavcolens</i>	...	...	...	...	...	...	...	...	6	
1365 <i>Lupinus affinis</i>	...	...	...	California	hA	b. & w.	1	6-10	3	
1366 <i>californicus</i>	...	...	...	...	...	...	...	...	3	
1367 <i>Hartwegi</i>	...	...	...	Mexico	...	d. b.	2	6-9	3	
1368 — albus	...	...	...	gar. var.	...	w.	...	...	3	
1369 — caelestinus	...	...	...	...	...	l. b.	...	...	3	
1370 — persicus	...	...	...	...	...	b. var.	...	...	6	
1371 — roseus	...	...	...	...	...	ro.	...	...	3	
1372 <i>hirsutissimus</i>	...	...	...	California	...	li. r.	...	...	3	
1373 <i>hybridus insignis</i>	...	...	...	hybrid	...	d. r.	...	...	3	
1374 — Dunnetti su-	...	...	...	...	...	r. b. & y.	...	...	3	
1375 <i>leptophyllus</i> [perbus	...	...	...	California	...	l. b.	1	7-10	3	
1376 <i>Menziesi</i>	...	...	...	...	...	sul.	...	6-9	6	
1377 <i>Moritzianus</i>	...	...	...	America	...	b.	2	...	3	
1378 <i>nutabilis</i>	...	...	...	Bogota	...	b. & y.	4	7-9	3	
1379 — Cruickshanksi	...	...	...	Peru	...	var.	...	...	3	
1380 — variegcolor	...	...	...	gar. var.	...	div.	...	...	3	
1381 <i>nanus</i>	...	...	...	California	...	var. b.	1	...	3	
1382 — albus	...	...	...	gar. var.	...	w.	...	...	3	

No.	Scientific Name.	L. O.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	N. of Flow.	Price.	GENERAL OBSERVATIONS.
1383	<i>Lupinus pubescens</i>	17	45	132	California	hA	v.	2	7-8	3	L. mutabilis variegata is a singularly interesting variety, the same seed producing a great variety of distinct colours, varying from pure white to purplish crimson. Sow in garden soil in April; but to have such varieties as Hartwegi and Cruckshanksi splendid, sow in heat in March, grow separately in pots, and turn out into good rich soil in the month of May: it is preferable, as a general rule, to sow the annual varieties where it is intended they shall bloom. L. magnificus is very handsome. L. arboreus is a fine shrub, with spikes of bright-yellow flowers. L. polyphyllus and albus are respectively known as the blue and white perennial Lupine.
1384	— <i>elegans</i>	...	...	...	gar. var.	...	p.v. & w.	...	...	3	
1385	<i>subcarnosus</i>	...	...	...	Texas	...	li. c. p.	1	6-10	4	
1386	<i>succulentus</i>	...	...	...	...	...	b.	...	...	4	
1387	<i>venustus</i>	...	...	...	America	...	li. & p.	2	7-8	3	
1388	<i>arbores</i>	...	...	...	California	hS	y.	6	...	6	
1389	<i>Douglasii</i>	...	...	...	...	hP	b.	2	6-10	3	
1390	<i>elegans</i>	...	...	...	Mexico	...	o. & w.	...	...	3	
1391	<i>grandifolius</i>	...	...	...	N. America	...	p.	2½	...	3	
1392	<i>guatemalensis</i>	...	...	...	Guatemala	...	d. v.	2	...	3	
1393	<i>magnificus</i>	...	...	...	gar. var.	...	d.b. & w.	4	...	6	Good garden soil. Handsome and useful Perennials. L. chalcidonia is to be met with in nearly every garden, and deserves its position. L. fulgens is brilliant in the extreme. L. haageana is a new hybrid. L. corsica is suitable for rock-work. Sow all the Lychnides in a nice sheltered place, and plant out.
1394	<i>polyphyllus</i>	...	...	...	Columbia	...	b.	...	6-8	3	
1395	— <i>albiflorus</i>	...	...	...	...	...	w.	...	...	3	
1396	mixed Annual	...	...	...	div.	hA	div.	div.	...	6	
1397	— Perennial	...	...	...	...	hP	...	...	...	6	
1398	<i>Lusania calycina</i>	5	25	178	Uruguay	hhP	w. & b.	1½	...	6	
1399	<i>Lychnis chalcidonia</i>	10	30	91	Russia	hP†	s.	2	6-7	3	
1400	— <i>alba</i>	...	...	...	...	...	w.	...	...	3	
1401	— <i>mutabilis</i>	...	...	...	...	...	var.	...	...	3	
1402	<i>corsica</i>	...	...	...	Corsica	...	r.	1½	...	3	
1403	<i>Flos Jovis</i>	...	...	...	Germany	hP	...	1½	...	3	Showy border plants. Sow in good garden soil. Osage Orange. Sow in garden soil in shady situations. Splendid Tree, richly scented blossoms. Fine ornamental plant. Free-blooming, showy Annuals; succeeding in almost any soil. Barbadoes Cherry. Plants of similar character to the Malope, but Perennials: sow under glass, harden off, and transplant. Fine fragrant Greenhouse Climber. Highly ornamental plants. Extremely handsome, large-flowered Annuals, deserving of the most extensive cultivation. M. fragrans is beautifully striped. Sow in mild hot-bed, pot off into small pots, and keep warm until growing freely. These superb Climbers, in conjunction with the different vars. of Lophospermum, cannot be too highly recommended. Sow in sandy, peaty soil, or loam and leaf-mould in slight hot-bed, prick off into pots, and encourage growth by re-potting. About May remove to cool greenhouse, conservatory, or train in columns in the flower-garden, removing them before the arrival of frost. Good garden soil. Very handsome Shrub. Usual greenhouse treatment. Ornamental Grasses. Sow in light rich soil. Dwarf-growing Annuals of great beauty, well suited for edgings and covering banks or rockeries fully exposed to the sun. Sow in hot-bed in sandy loam; when fit, prick off, and about May plant out in sandy soil. Loquat Tree of Japan. Good garden soil. Very pretty ornamental Grass.
1404	<i>fulgens</i>	...	...	...	Siberia	hhP†	s.	...	...	6	
1405	<b>Haageana</b>	...	...	...	hybrid	hP†	r.	...	6-8	10	
1406	<i>Lysimachia Ephemerum</i>	5	25	160	Spain	hP	w.	2	7-9	6	
1407	<i>Lythrum roseum superbum</i>	11	...	169	Britain	...	ro.	4	...	3	
1408	<i>virgatum</i>	...	...	...	...	...	...	...	...	3	
1409	<i>MacLura aurantiaca</i>	21	39	185	N. America	hT	ap.	20	...	3	
1410	<i>Madaria elegans</i>	19	54	98	N.W. America	hA	y.	1½	...	3	
1411	<i>corymbosa</i>	...	...	...	California	...	w.	...	...	3	
1412	<i>Magnolia grandiflora</i>	13	35	136	Carolina	hT	...	20	6-7	6	
1413	<i>Magdalis tomentosa</i>	...	...	...	...	hhS	...	...	...	6	Barbadoes Cherry. Plants of similar character to the Malope, but Perennials: sow under glass, harden off, and transplant. Fine fragrant Greenhouse Climber. Highly ornamental plants. Extremely handsome, large-flowered Annuals, deserving of the most extensive cultivation. M. fragrans is beautifully striped. Sow in mild hot-bed, pot off into small pots, and keep warm until growing freely. These superb Climbers, in conjunction with the different vars. of Lophospermum, cannot be too highly recommended. Sow in sandy, peaty soil, or loam and leaf-mould in slight hot-bed, prick off into pots, and encourage growth by re-potting. About May remove to cool greenhouse, conservatory, or train in columns in the flower-garden, removing them before the arrival of frost. Good garden soil. Very handsome Shrub. Usual greenhouse treatment. Ornamental Grasses. Sow in light rich soil. Dwarf-growing Annuals of great beauty, well suited for edgings and covering banks or rockeries fully exposed to the sun. Sow in hot-bed in sandy loam; when fit, prick off, and about May plant out in sandy soil. Loquat Tree of Japan. Good garden soil. Very pretty ornamental Grass.
1414	<i>Malope trifida</i>	16	48	137	Barbary	hA	p.	1½	7-10	3	
1415	— <i>grandiflora</i>	...	...	...	...	...	c.	2	...	3	
1416	— <i>alba</i>	...	...	...	...	...	w.	...	...	3	
1417	<i>Malpighia glabra</i>	10	28	192	W. Indies	sT	r.	16	3-7	6	
1418	<i>Malva capensis</i>	16	48	137	C. G. Hope	hhS	...	10	1-12	6	
1419	<i>crenulata</i>	...	...	...	S. Europe	hP	...	4	6-8	3	
1420	— <i>variegata</i>	...	...	...	...	...	var.	...	...	3	
1421	<i>Morcin</i>	...	...	...	Italy	...	r.	...	7-8	3	
1422	<i>zebrina</i>	...	...	...	S. Europe	hA	p.	6	6-7	3	Barbadoes Cherry. Plants of similar character to the Malope, but Perennials: sow under glass, harden off, and transplant. Fine fragrant Greenhouse Climber. Highly ornamental plants. Extremely handsome, large-flowered Annuals, deserving of the most extensive cultivation. M. fragrans is beautifully striped. Sow in mild hot-bed, pot off into small pots, and keep warm until growing freely. These superb Climbers, in conjunction with the different vars. of Lophospermum, cannot be too highly recommended. Sow in sandy, peaty soil, or loam and leaf-mould in slight hot-bed, prick off into pots, and encourage growth by re-potting. About May remove to cool greenhouse, conservatory, or train in columns in the flower-garden, removing them before the arrival of frost. Good garden soil. Very handsome Shrub. Usual greenhouse treatment. Ornamental Grasses. Sow in light rich soil. Dwarf-growing Annuals of great beauty, well suited for edgings and covering banks or rockeries fully exposed to the sun. Sow in hot-bed in sandy loam; when fit, prick off, and about May plant out in sandy soil. Loquat Tree of Japan. Good garden soil. Very pretty ornamental Grass.
1423	<i>Mandevilla suaveolens*</i>	5	25	69	Buenos Ayres	gS	w.	20	6-8	4	
1424	<i>Manilfa foetida</i>	14	59	175	C. G. Hope	gA	...	1½	6-9	6	
1425	<i>violacea</i>	...	...	...	...	sp	v.	2	7-9	6	
1426	<i>Martynia angularis</i>	...	...	151	America	hhA	l. p.	...	7-8	3	
1427	<i>Cranioliria</i>	...	...	...	S. America	...	w.	...	...	3	
1428	<b>fragrans</b>	...	...	...	Mexico	...	p. stri.	...	...	3	
1429	<i>litca</i>	...	...	...	Brazils	...	y.	...	...	3	
1430	<i>proboscidea</i>	...	...	...	America	...	l. b.	...	...	3	
1431	<i>Maurandya antirrhiniflora</i>	...	...	175	Mexico	gS	p.	10	4-9	6	
1432	<i>Barclayana</i>	...	...	...	...	...	s.	...	...	6	Barbadoes Cherry. Plants of similar character to the Malope, but Perennials: sow under glass, harden off, and transplant. Fine fragrant Greenhouse Climber. Highly ornamental plants. Extremely handsome, large-flowered Annuals, deserving of the most extensive cultivation. M. fragrans is beautifully striped. Sow in mild hot-bed, pot off into small pots, and keep warm until growing freely. These superb Climbers, in conjunction with the different vars. of Lophospermum, cannot be too highly recommended. Sow in sandy, peaty soil, or loam and leaf-mould in slight hot-bed, prick off into pots, and encourage growth by re-potting. About May remove to cool greenhouse, conservatory, or train in columns in the flower-garden, removing them before the arrival of frost. Good garden soil. Very handsome Shrub. Usual greenhouse treatment. Ornamental Grasses. Sow in light rich soil. Dwarf-growing Annuals of great beauty, well suited for edgings and covering banks or rockeries fully exposed to the sun. Sow in hot-bed in sandy loam; when fit, prick off, and about May plant out in sandy soil. Loquat Tree of Japan. Good garden soil. Very pretty ornamental Grass.
1433	— <i>alba</i>	...	...	...	seedlings	...	w.	...	...	6	
1434	— <i>Emeriana</i>	...	...	...	...	...	p.	...	...	6	
1435	— <i>violacea</i>	...	...	...	...	...	v.	...	...	6	
1436	— <i>kermesina</i>	...	...	...	...	...	e.	...	...	6	
1437	— <i>Lucyana</i>	...	...	...	...	...	ro.	...	...	6	
1438	— <i>purpurea</i>	...	...	...	...	...	d. p.	...	...	6	
1439	<i>semperflorens</i>	...	...	...	Mexico	...	p.	...	10-12	6	
1440	— <i>violacea</i>	...	...	...	gar. var.	...	v.	...	...	6	
1441	<i>Melampodium macranthum</i>	19	56	98	...	hA	...	...	...	3	Barbadoes Cherry. Plants of similar character to the Malope, but Perennials: sow under glass, harden off, and transplant. Fine fragrant Greenhouse Climber. Highly ornamental plants. Extremely handsome, large-flowered Annuals, deserving of the most extensive cultivation. M. fragrans is beautifully striped. Sow in mild hot-bed, pot off into small pots, and keep warm until growing freely. These superb Climbers, in conjunction with the different vars. of Lophospermum, cannot be too highly recommended. Sow in sandy, peaty soil, or loam and leaf-mould in slight hot-bed, prick off into pots, and encourage growth by re-potting. About May remove to cool greenhouse, conservatory, or train in columns in the flower-garden, removing them before the arrival of frost. Good garden soil. Very handsome Shrub. Usual greenhouse treatment. Ornamental Grasses. Sow in light rich soil. Dwarf-growing Annuals of great beauty, well suited for edgings and covering banks or rockeries fully exposed to the sun. Sow in hot-bed in sandy loam; when fit, prick off, and about May plant out in sandy soil. Loquat Tree of Japan. Good garden soil. Very pretty ornamental Grass.
1442	<i>Melia Azedarach</i>	10	25	139	Syria	hhS	b.	40	6-8	6	
1443	<i>Melanthus major</i>	14	59	168	C. G. Hope	gS	br.	5-7	...	6	
1444	<i>Melica pyramidalis</i>	3	25	123	Barbary	hP	ap.	1½	6-7	6	
1445	<i>Browniana</i>	...	...	...	Italy	...	...	...	...	6	
1446	<i>Melissa officinalis</i>	14	58	130	S. Europe	...	w.	1	6-10	3	
1447	<i>grandiflora</i>	...	...	...	...	...	...	...	...	3	
1448	<i>Mesembryanthemum cap-</i>	12	27	113	C. G. Hope	hhA	pa. y.	...	5-9	3	
1449	<b>glabrum</b> [tatum	...	...	...	...	...	y.	...	7-10	3	
1450	<i>pinnatifidum</i>	...	...	...	...	...	...	...	6-10	3	
1451	<i>pomeridianum</i>	...	...	...	...	...	...	...	...	3	Barbadoes Cherry. Plants of similar character to the Malope, but Perennials: sow under glass, harden off, and transplant. Fine fragrant Greenhouse Climber. Highly ornamental plants. Extremely handsome, large-flowered Annuals, deserving of the most extensive cultivation. M. fragrans is beautifully striped. Sow in mild hot-bed, pot off into small pots, and keep warm until growing freely. These superb Climbers, in conjunction with the different vars. of Lophospermum, cannot be too highly recommended. Sow in sandy, peaty soil, or loam and leaf-mould in slight hot-bed, prick off into pots, and encourage growth by re-potting. About May remove to cool greenhouse, conservatory, or train in columns in the flower-garden, removing them before the arrival of frost. Good garden soil. Very handsome Shrub. Usual greenhouse treatment. Ornamental Grasses. Sow in light rich soil. Dwarf-growing Annuals of great beauty, well suited for edgings and covering banks or rockeries fully exposed to the sun. Sow in hot-bed in sandy loam; when fit, prick off, and about May plant out in sandy soil. Loquat Tree of Japan. Good garden soil. Very pretty ornamental Grass.
1452	<b>tricolor</b>	...	...	...	...	...	e.	...	6-10	3	
1453	— <i>album</i>	...	...	...	...	...	w.	...	...	3	
1454	<i>Mespilus japonicus</i>	...	...	166	Japan	hhT	...	10	5-6	6	
1455	<i>pyracanthifolia</i>	...	...	...	N. America	hT	...	...	6-7	6	
1456	<b>Milium multiflorum</b>	3	25	123	S. Europe	hP	ap.	1½	...	6	

<i>Scientific Name.</i>	<i>Cl.</i>	<i>L. O.</i>	<i>N. O.</i>	<i>Native Country.</i>	<i>H. &amp; Dur.</i>	<i>Col. of Fl.</i>	<i>Hght.</i>	<i>M. of Flow.</i>	<i>Price.</i>	<i>GENERAL OBSERVATIONS.</i>
<i>No.</i>							<i>feet</i>		<i>s. d.</i>	
1457 <b>Mimulus</b> cardinalis	14	59	175	N.W. Amer.	hhP†	s.	2	7-9	4	Strikingly handsome flowers, among the gayest ornaments for conservatory, greenhouse, or general flower-garden. M. moschatus is the well-known Musk Plant. Sow under glass in a little heat, prick off the seedlings.
1458 — atrosanguineus	...	...	...	gar. var.	...	d. s.	...	...	6	
1459 — luteus	...	...	...	America	...	y.	...	6-9	6	
1460 — moschatus	...	...	...	Columbia	...	l.	3	...	3	
1461 <b>finest mixed</b>	...	...	...	gar. var.	...	div.	...	...	6	
1462 Momordica Balsamina**	21	49	104	India	hhA	y.	6	6-8	6	Very curious trailing plants, with foliage like the Canary-bird Creeper: the fruit of M. Balsamina is very curious and handsome.
1463 Charántia**	...	...	...	E. Indies	...	...	...	...	4	
1464 Elatèrium**	...	...	...	S. Europe	...	...	...	...	6	
1465 Morina longifolia	2	25	107	India	hhP†	r.	3	7-11	6	Light rich soil.
1466 Morina elegans	19	53	98	Swan River	hhA	y.	2	6-8	3	Usual greenhouse treatment.
1467 Mulgèdium fimbriatum	...	...	...	...	hA	...	...	...	3	
1468 Muralia Heisteria	17	41	155	C. G. Hope	hhS	p.	6	1-12	6	Sow in heat and transplant.
1469 Murueña oculata	16	42	150	E. Indies	gP	...	...	6-8	6	Everlasting Flower.
1470 Myoporum dulce	...	...	...	...	...	...	...	...	6	
1471 Myosotis alpestris	5	25	81	Switzerland	hP†	h.	3	6-9	3	Forget-me-not. These beautiful little flowers are too well known to need recommendation; will grow around fountains, over damp rockeries, or in any moist situation. M. azorica has the largest bloom.
1472 — alba	...	...	...	...	...	w.	...	...	4	
1473 azorica	...	...	...	Azores	...	d. b.	...	8-11	6	
1474 palustris	...	...	...	Britain	...	b. & y.	3	4-8	3	
1475 — alba	...	...	...	...	...	w.	...	...	4	
1476 Myrrhis odorata	...	26	184	...	hP	...	1 1/2	5-6	4	Good garden soil.
1477 Myrtus communis	12	51	142	S. Europe	hS	...	6	7-8	3	Myrtle, sweet-scented.
1478 Nemèsia floribunda	14	59	175	C. G. Hope	hhA	w. & y.	1	6-9	3	
1479 — versicolor	...	...	...	...	...	var.	...	...	3	
1480 — alba	...	...	...	gar. var.	...	w.	...	...	3	
1481 — compacta	...	...	...	...	...	var.	1 1/2	...	6	
1482 — — alba	...	...	...	...	...	w.	...	...	6	
1483 — — insignis	...	...	...	...	...	b.	...	...	1 0	
1484 — — La superbe	...	...	...	...	...	ro.	...	...	1 0	
1485 Nemophila atomaria	...	...	81	California	hA	w.spot.	1 1/2	6-10	3	
1486 — — ecclæstis	...	...	...	...	...	b.spot.	...	...	3	
1487 — — oedata	...	...	...	gar. var.	...	b.w.blk	...	...	6	
1488 discoidalis	...	...	...	California	...	blk. w.	...	...	3	
1489 — marmorata	...	...	...	gar. var.	...	mar.	...	...	3	
1490 insignis	...	...	...	California	...	b.	...	...	3	
1491 — alba	...	...	...	gar. var.	...	w.	...	...	3	
1492 — grandiflora	...	...	...	...	...	h.	...	...	3	
1493 — — alba	...	...	...	...	...	w.	...	...	3	
1494 — marginata	...	...	...	...	...	w. & b.	...	...	3	
1495 — striata	...	...	...	...	...	stri.	...	...	3	
1496 maculata	...	...	...	California	...	w. & p.	...	...	3	
1497 — folio variegata	...	...	...	gar. var.	...	...	...	...	6	
1498 phacelioides	...	...	...	N. America	hP†	b.	1	...	3	
1499 Nerium Oleander	5	25	69	S. Europe	hhS	ro.	8	...	6	
1500 tinctorium	...	...	...	...	...	...	...	...	6	
1501 Nepeta macrantha	14	58	130	Siberia	hP†	b.	1	6-8	3	
1502 Mussini	...	...	...	Britain	...	...	...	...	3	
1503 odorata	...	...	...	...	...	...	...	...	3	
1504 violacea	...	...	...	Persia	...	v.	2	7-8	3	
1505 Nieandra physaloides	5	25	178	Peru	hhA	p.	...	7-9	6	Good garden soil.
1506 Nicotiana glauca	...	...	...	America	hA	ro.	3	...	3	
1507 Oronoko	...	...	...	...	...	...	...	...	3	
1508 rústica	...	...	...	...	...	g.	...	...	3	
1509 scarlet	...	...	...	...	...	r.	...	...	3	
1510 virginica	...	...	...	...	...	...	...	...	3	
1511 Nierembergia gracilis	...	...	...	Uruguay	hhP	w. & b.	1 1/2	6-10	1 0	
1512 — intermedia	...	...	...	Panama	...	pa. y.	1	8-10	1 0	
1513 Nigella damascena	13	30	162	S. Europe	hA	l. b.	2	6-9	3	
1514 — ecclæstina	...	...	...	gar. var.	...	...	...	...	3	
1515 — nana, fl. pl.	...	...	...	...	...	...	1	...	4	
1516 hispánica	...	...	...	Spain	...	b. & w.	1 1/2	6-10	3	
1517 — alba	...	...	...	gar. var.	...	...	...	...	6	
1518 — atropurpurea	...	...	...	...	...	d. p.	...	...	6	
1519 — romana	...	...	...	S. Europe	...	b.	2	...	3	
1520 — nana	...	...	...	...	...	...	1	...	3	
1521 Nolana paradoxa	5	25	81	Chili	...	...	1 1/2	7-9	3	
1522 — violacea	...	...	...	gar. var.	...	...	...	...	3	
1523 atriplicifolia	...	...	...	Peru	...	b. w. y.	1 1/2	...	3	
1524 — alba	...	...	...	...	...	w.	...	...	3	
1525 prostrata	...	...	...	...	...	b.	...	...	3	
1526 Nönea rosea [stis]	...	...	...	Crimea	...	ro.	1 1/2	6-10	3	Good garden soil.
1527 Nyctanthes arbor-tri	2	...	129	E. Indies	gS	w.	15	...	6	Extremely graceful Greenhouse plant.
1528 Nycterina capensis	14	59	175	C. G. Hope	hhP†	...	3	7-10	6	
1529 selaginoides	...	...	...	...	...	pk.	...	...	6	
1530 — alba	...	...	...	...	...	w.	...	...	6	Most beautiful dwarf plants, covered with blossom, extremely compact, and well suited for rockeries or edgings.



Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet		s. d.	
1531 <i>Nymphaea alba</i>	13	25	133	Britain	hP	w.	aq.	6-7	6	Water Lily: sow in loam in pans, covered with water, and place in warm hot-bed.
1532 <i>dentata</i> [aca]	...	...	...	Guinea	sP	...	...	7-8	1 0	
1533 <i>Obeliscaria auranti-</i>	19	55	98	gar. var.	hP+	y.	2	8-10	4	Curious hardy Herbaceous Plants: grow in any good garden soil.
1534 <i>puleherrima</i>	...	...	...	Texas	...	c. & y.	...	...	4	
1535 <i>Oenothera acaulis</i>	8	25	146	Chili	...	w.	3	4-9	6	... ..
1536 <i>biennis</i>	...	...	...	N. America	...	y.	4	6-9	3	
1537 — var. <i>hirsutissima</i>	...	...	...	California	...	or.	2	...	6	... ..
1538 <i>bistorta Veitchei</i>	...	...	...	...	hhA	y. & c.	1	7-9	6	
1539 <i>campylocarpa</i>	...	...	...	...	hP+	o. r.	2	6-9	6	The tribe of <i>Oenotheras</i> , or Night-bloomers, contains many superior kinds of flowers: viz., <i>O. acaulis</i> , which has very large and beautiful silvery-white blossoms almost as transparent as mother-of-pearl. <i>O. macrocarpa</i> and <i>taraxaeifolia</i> have magnificent yellow blooms. <i>O. Drummondii</i> nana is an extraordinarily free bloomer, and flowers for four months continuously: colour a rich sulphur. <i>O. grandiflora</i> ( <i>Lamarck</i> ) has a superb spike of bloom, and we have seen some with upwards of 400 buds and blossoms upon them: it is certainly one of the showiest yellow flowers grown. <i>O. bistorta Veitchei</i> is a pretty edging plant, and may be grown in rockeries. Sow the perennial varieties on slight hot-bed and transplant to borders in May: annual kinds may be sown in the open borders: good deep sandy loam suits all.
1540 — <i>grandiflora</i>	...	...	...	gar. var.	...	...	...	...	6	
1541 <i>concinna</i>	...	...	...	Florida	hhA	l. ro.	4	7-9	3	... ..
1542 <i>consolida</i>	...	...	...	...	...	y.	1	...	3	
1543 <i>Drummondii</i>	...	...	...	Texas	hP+	...	2	7-10	3	... ..
1544 — <i>nana</i>	...	...	...	...	...	...	trai	...	6	
1545 <i>grandiflora</i>	...	...	...	N. America	...	...	4	6-9	3	... ..
1546 <i>Jamesi</i>	...	...	...	California	...	...	2	...	6	
1547 <i>Kuntliana</i>	...	...	...	...	...	...	1	...	3	... ..
1548 <i>Lamarckiana</i>	...	...	...	...	...	...	3	...	1 0	
1549 <i>longifolia</i>	...	...	...	Buenos Ayres	hB	...	...	7-9	6	... ..
1550 <i>macrocarpa</i>	...	...	...	N. America	hP	...	1	6-7	6	
1551 <i>micrantha</i>	...	...	...	California	hA	...	...	5-9	6	... ..
1552 <i>Missouriensis</i>	...	...	...	...	hP+	...	3	...	6	
1553 <i>odorata</i>	...	...	...	S. America	...	...	2	4-8	3	... ..
1554 <i>rosea vel coccinea</i>	...	...	...	Peru	hhP	ro.	1	5-8	3	
1555 <i>Selloviana</i>	...	...	...	Monte Video	...	y.	1½	7-9	3	... ..
1556 <i>stricta</i>	...	...	...	Mexico	hhA	...	...	6-8	3	
1557 <i>taraxacifolia alba</i>	...	...	...	Chili	hP+	w.	3	4-9	6	... ..
1558 — <i>lutea</i>	...	...	...	Peru	...	y.	...	5-8	6	
1559 <i>tetraptera</i>	...	...	...	Mexico	hA	w.	1	6-8	3	... ..
1560 <i>undulata</i>	...	...	...	America	hP	y.	2	...	3	
1561 <i>Olea sylvestris</i>	2	...	145	S. Europe	gS	w.	10	...	6	Olive: grow in sandy soil.
1562 <i>verrucosa</i>	...	...	...	...	...	...	...	...	6	
1563 <i>Onobrychis petraea</i>	17	45	132	...	hP	...	2	...	6	Good garden soil.
1564 <i>Ononis pubescens</i>	...	...	...	Spain	bA	v.	3	...	3	
1565 <i>viscosa</i>	...	...	...	S. Europe	...	y. & p.	1	7-8	3	Free-growing Annuals.
1566 <i>Orbus coccineus</i>	...	...	...	N. America	hP+	s.	...	4-5	3	
1567 <i>Osteospermum nerifolium</i>	19	56	98	Cape G. Hope	gS	y.	3	7-8	6	Usual greenhouse treatment.
1568 <i>Osyris alba</i>	22	38	171	S. Europe	...	w.	...	6-8	6	
1569 <i>Oxalis floribunda</i>	10	30	147	Brazils	fPb	ro.	3	4-9	6	Very dwarf, pretty, profuse-blooming plants, well adapted for covering banks or edgings. <i>O. tropaeoloides</i> has a dark ornamental foliage, similar to the <i>Shauroek</i> .
1570 — <i>alba</i>	...	...	...	...	...	w.	...	...	6	
1571 <i>rosea</i>	...	...	...	Chili	...	ro.	...	...	6	... ..
1572 <i>tropaeoloides</i>	...	...	...	Cape G. Hope	hhA	y.	3	6-9	6	
1573 <i>Oxyura chrysanthemoides</i>	19	54	98	California	hA	...	1½	...	3	Showy hardy Annual.
1574 <i>Ozothamnus ferrugineus</i>	...	53	...	V. D.'s Land	hhS	...	1	4-9	6	
1575 <i>Paeonia arietina</i>	13	25	162	Levant	hP	p.	2	5-6	6	Good garden soil.
1576 <i>Palafoxia texana</i>	19	53	98	Texas	hhA	br. r.	...	6-7	3	
1577 <i>Paliurus aculeatus</i>	5	25	164	S. Europe	hS	pa. g.	4	...	6	Common garden soil.
1578 <i>Panicum colonum</i>	3	26	123	E. Indies	hA	ap.	3	6-8	6	
1579 <i>concinnum</i>	...	...	...	...	...	...	...	...	6	... ..
1580 <i>Cris-Galli</i>	...	...	...	Britain	...	...	1½	...	6	
1581 <i>erigonum fimbriatum</i>	...	...	...	N. Holland	...	...	1	...	6	... ..
1582 <i>fimbriatum</i>	...	...	...	S. Europe	...	...	...	...	6	
1583 <i>glaucom</i>	...	...	...	...	...	...	...	...	6	Ornamental Grasses; well suited for winter bouquets; of very easy culture: see <i>Agrostis</i> .
1584 <i>italicum</i>	...	...	...	...	...	...	...	...	6	
1585 <i>nigrescens</i>	...	...	...	...	...	...	...	...	6	... ..
1586 <i>origanum</i>	...	...	...	...	...	...	...	...	6	
1587 <i>plicatum</i>	...	...	...	...	...	...	...	...	6	... ..
1588 <i>sanguinale</i>	...	...	...	...	...	...	...	...	6	
1589 <i>verticillatum</i>	...	...	...	...	...	...	...	...	6	... ..
1590 <i>Papaver bracteatum</i>	13	25	149	Siberia	hP+	r.	3	5-6	3	
1591 <i>erocnem</i>	...	...	...	Altaia	...	o.	1	5-7	3	... ..
1592 <i>fimbriatum</i> [mum]	...	...	...	gar. var.	...	r.	2	...	3	
1593 <i>involutum maxi-</i>	...	...	...	...	...	...	...	...	3	These perennial Poppies are very ornamental. <i>P. pulcherrimum</i> and <i>orientale</i> are the best. Sow thinly where the plants are to remain, and cover with a pot until well up.
1594 <i>Marshalli</i>	...	...	...	...	...	var.	...	...	4	
1595 — <i>splendens</i>	...	...	...	...	...	...	...	...	4	... ..
1596 <i>nudicaule</i>	...	...	...	Siberia	...	y.	1½	6-8	3	
1597 <i>orientale</i>	...	...	...	Levant	hP	r.	3	5-6	3	... ..
1598 <i>pilosum</i>	...	...	...	Russia	...	o.	2	...	3	
1599 <i>pulcherrimum</i>	...	...	...	Siberia	...	r.	3	...	4	Ornamental Grass.
1600 <i>Paspalum elegans</i>	3	26	123	Brazils	hhA	ap.	1½	7-8	3	
1601 <i>Passiflora cerulea**</i>	16	40	150	C. G. Hope	hS	b.	30	6-10	6	Passion-flower. These flowers are admirable ornaments to the Conservatory, Greenhouse, or, Ithhouse.
1602 <i>caulis**</i>	...	...	...	W. Indies	gS	w.	...	7-8	6	
1603 <i>fuctia**</i>	...	...	...	...	...	w. & g.	10	7-9	6	... ..
1604 <i>gracilis**</i>	...	...	...	...	gA	w.	6	8-9	1 0	

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet		s. d.	
1605 <i>Patersonia longicaapa</i>	15	38	128	N. S. Wales	gP	b.	1½	5-7	6	Good garden soil.
1606 <i>Paulownia imperialis</i>	14	59	175	Japan	hT	w. & p.	20	4-5	6	Noble hardy Tree.
1607 <i>Pavonia hastata</i> [brids]	16	48	137	E. Indies	sS	r.	2		6	Sow on heat in hothouse.
1608 <i>Pelargonium, choice hy-</i>	...	42	119	hybrid	gS	div.	3	6-9	1 0	Choice Geraniums. Sow in light soil in hot-bed, and harden off by degrees. P. Odier has a distinct scarlet blotch on each petal.
1609 <i>Fancy varieties</i>	...	...	...	...	...	...	...	...	1 0	
1610 <i>Odier's var., spotted</i>	...	...	...	...	...	...	...	...	1 0	
1611 <i>zonale (scarlet)</i>	...	...	...	...	hhS	s.	2	4-10	6	Ornamental Grasses.
1612 <i>Pennisetum italicum</i>	3	25	123	S. Europe	hA	ap.	...	6-8	3	
1613 <i>longistylum</i>	...	...	...	...	...	...	...	...	3	
1614 <i>villosum</i>	...	...	...	...	...	...	...	...	3	Usual greenhouse treatment.
1615 <i>Pentapetes phoenicea</i>	16	45	83	India	gP	s.	...	7-8	6	
1616 <i>Pentstemon Adamsoni</i>	14	59	175	gar. var.	hP	ro.	3	...	6	
1617 <i>confertus</i>	...	...	...	...	...	...	1	6-10	6	These Herbaceous plants are very handsome, and deservedly rising in repute as bedding plants, their long tubular flowers being very ornamental. P. Murrayanus is the most brilliant of all. P. Hartwegi and its varieties, and P. pulchellus and its varieties, are the freest-blooming kinds, and can be strongly recommended. Many of these will bloom early in the autumn out of doors, if sown early in March in a hot-bed and planted out in May. Sown in a border in April, they should receive a little protection during the first winter; and it would be better to have glass over such varieties as Hartwegi, &c.
1618 <i>cordifolius</i>	...	...	...	California	...	s.	...	...	6	
1619 <i>digitalis</i> [des]	...	...	...	Arkansas	...	w.	1½	7-9	3	
1620 <i>Hartwegi (gentianoi-</i>	...	...	...	Mexico	...	div.	3	7-10	6	
1621 <i>— coccineus</i>	...	...	...	gar. var.	...	s.	1	8-9	6	
1622 <i>hirsutus</i>	...	...	...	N. America	...	l. p.	1	7-8	6	
1623 <i>Mackayanus</i>	...	...	...	Ohio	...	p.w.&y	3	7-10	1 0	
1624 <i>Murrayanus</i>	...	...	...	S. Felipe	...	s.	1	6-10	6	
1625 <i>nifidus</i>	...	...	...	Texas	...	p.w.&y	4	6-8	6	
1626 <i>ovatus</i>	...	...	...	N. America	...	b.	...	...	6	
1627 <i>— albus</i>	...	...	...	gar. var.	...	w.	1	...	6	
1628 <i>procerns</i>	...	...	...	N. America	...	p.	...	...	6	
1629 <i>pulchellus</i>	...	...	...	Mexico	...	div.	1½	8-9	6	
1630 <i>— roseus</i>	...	...	...	gar. var.	...	ro.	...	...	6	
1631 <i>— violaceus</i>	...	...	...	...	...	v.	...	...	6	
1632 <i>Wrighti</i>	...	...	...	...	...	d. ro.	...	...	6	
1633 <i>Perilla nankinensis</i>	...	58	130	China	hA	p. leaf	3	6-8	3	Rich dark bronze ornamental foliage; good for bedding.
1634 <i>oeynoides</i>	...	...	...	India	...	w.	2	...	3	Pectinias, from their richness of colour, duration in bloom, and fragrance, are admirable bedding plants, and contrast effectively with Scarlet Geraniums, Verbenas, &c. &c. P. grandiflora and its varieties are saved only from the finest flowers. All the kinds when raised from seed may be treated as Half-hardy Annuals. See instructions given for Calliopsis.
1635 <i>Petunia argentea</i>	5	25	178	S. America	hhP+	sil.	...	7-10	6	
1636 <i>nyctaginiflora</i>	...	...	...	...	...	w.	...	...	3	
1637 <i>phoenicea</i>	...	...	...	Buenos Ayres	...	p.	...	...	3	
1638 <i>— grandiflora</i>	...	...	...	gar. var.	...	...	...	...	6	
1639 <i>— alba</i>	...	...	...	...	...	w.	...	...	6	
1640 <i>— atrovioleacea</i>	...	...	...	...	...	d. v.	...	...	6	
1641 <i>— kermesina</i>	...	...	...	...	...	c.	...	...	6	
1642 <i>— purpurea</i>	...	...	...	...	...	p.	...	...	6	
1643 <i>— rosea</i>	...	...	...	...	...	ro.	...	...	6	
1644 <i>— striata</i>	...	...	...	...	...	stri.	...	...	6	
1645 <i>— green-edged</i>	...	...	...	...	...	gr. bor.	...	...	6	
1646 <i>splendid, mixed</i>	...	...	...	...	...	div.	...	...	6	
1647 <i>Phacelia congesta</i>	...	...	81	S. Europe	hA	b.	...	...	3	Hardy Annuals. Should be sown in good garden soil where it is intended they should bloom.
1648 <i>conspicua</i>	...	...	...	California	...	...	...	6-9	3	
1649 <i>tanacetifolia</i>	...	...	...	...	...	o.	...	...	3	
1650 <i>— alba</i>	...	...	...	gar. var.	...	w.	...	...	3	Good garden soil.
1651 <i>Phalacraea celestina</i>	19	53	98	W. Indies.	hhA	b.	1	6-8	6	
1652 <i>Phalaris paradoxa**</i>	3	26	123	Levant	hA	ap.	...	6-7	6	
1653 <i>Phaseolus Caraenalla**</i>	17	45	132	India	gP	li.	1½	8-9	1 0	Handsome Climbers with ornamental foliage and large bunches of blossom.
1654 <i>coccineus novus**</i>	...	...	...	gar. var.	hhA	s.	5	7-9	1 0	
1655 <i>humifusus**</i>	...	...	...	...	...	...	...	...	1 0	
1656 <i>Phlox Russelliana</i>	14	58	130	Levant	hP	br.	3	6-9	6	Good garden soil.
1657 <i>Phlox Drummondii</i> , 20	5	25	154	Texas	hhA	div.	1	...	6	The varieties of Phlox Drummondii are noted for extreme richness of colour, profuseness of blossom, length of duration in bloom, and general compactness, and whether in clumps or masses look equally beautiful. The varieties in black type may be specially recommended for producing the greatest effect. Our mixed packet, No. 1657, contains a great variety of colours. Sow in well-drained pots in mild hot-bed; prick off in boxes, and when fit, pot separately, and turn out in the middle of May into deep, well-stirred soil. The perennial species, which are very handsome, require protection during winter.
1658 <i>— alba</i> [vars.]	...	...	...	gar. var.	...	w.	...	...	6	
1659 <i>— atrococcinea</i>	...	...	...	...	...	d. s.	...	...	6	
1660 <i>— atropurpurea</i>	...	...	...	...	...	d. p.	...	...	6	
1661 <i>— coccinea</i>	...	...	...	...	...	s.	...	...	6	
1662 <i>— Leopoldiana</i>	...	...	...	...	...	c. & w.	...	...	6	
1663 <i>— Magenta</i>	...	...	...	...	...	e.	...	...	6	
1664 <i>— marmorata</i>	...	...	...	...	...	mar.	...	...	6	
1665 <i>— Napoleon III.</i>	...	...	...	...	...	d. e.	...	...	6	
1666 <i>— oculata alba</i>	...	...	...	...	...	w. & e.	...	...	6	
1667 <i>— purpurea</i>	...	...	...	...	...	p. & w.	...	...	6	
1668 <i>— Radowitzki</i>	...	...	...	...	...	stri.	...	...	1 0	
1669 <i>— rosea</i>	...	...	...	...	...	ro.	...	...	6	
1670 <i>Victoria Regina</i>	...	...	...	...	...	p.	...	...	6	
1671 <i>zinnabarina</i>	...	...	...	...	...	v.	...	...	6	
1672 <i>deussata, finest</i>	...	...	...	N. America	hP	d. p.	1½	...	1 0	New Zealand Flax.
1673 <i>French perennial vars.</i>	...	...	...	hybrids	...	div.	3	...	1 0	
1674 <i>Phormium tenax</i>	6	...	74	N. Zealand	gP	g. & w.	6	8-9	1 0	
1675 <i>Phygelius capensis</i>	14	59	175	Capraria	hP	c. & y.	2	6-10	1 0	
1676 <i>Phyllea plumosa</i>	5	25	164	C. G. Hope	gS	w.	...	3-5	6	
1677 <i>Phillyrea angustifolia</i>	2	...	145	S. Europe	hS	...	8	5-6	3	
1678 <i>latifolia</i>	...	...	...	...	...	...	15	...	3	

Scientific Name.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.						feet		s. d.	
1679 <i>Phy'salis peruviana</i>	5	25	178 S. America	gP	w.	1 $\frac{1}{2}$	4-10	6	Usual greenhouse treatment.
1680 <i>Pinus excelsa</i>	21	49	99 Nepaul	hT	ap.	100		6	
1681 <i>Gerardiana</i>	...	...	...	...	...	50		6	Fine ornamental hardy Conifers. Sow in
1682 <i>halcensis</i>	...	...	...	...	...	...		6	pans and boxes under protection, placing
1683 <i>Pindrow</i>	...	...	...	...	...	100		6	the seeds an inch apart: keep under pro-
1684 <i>Webbiana</i>	...	...	...	...	...	90		6	tection the first winter.
1685 <i>Pinca</i>	...	...	...	...	...	50		3	
1686 <i>Piptathërum Thomasi</i>	3	26	123 S. Europe	hA	...	1	6-9	3	Ornamental Grass.
1687 <i>Pistacia Lentiscus</i>	22	40	179 ...	hhT	...	15	5-6	6	Sow in heat and transplant.
1688 <i>Pittosporum undulatum</i>	5	25	152 N. S. Wales	gS	w. & y.	3	2-6	6	
1689 <i>viridiflorum [nicus]</i>	...	...	...	...	...	...	...	6	Usual greenhouse treatment.
1690 <i>Platystemon californ.</i>	3	...	149 California	hhA	y.	1	7-9	6	Extremely pretty Annual; good for rockeries.
1691 <i>Pleroma elegans</i>	10	...	138 Brazils	sS	v.	4	6-9	2 6	Superb plant
1692 <i>Plumieria acuminata</i>	5	...	69 E. Indies	...	r. & y.	20	6-7	6	Usual stove culture.
1693 <i>Poa brizopyroides</i>	3	26	123 S. Europe	hA	ap.	1	6-9	6	Ornamental Grass.
1694 <i>Podaly'ria sericea</i>	10	25	132 C. G. Hope	gS	p.	6	1-10	6	
1695 <i>styracifolia</i>	...	...	...	...	pk.	1	5-6	6	Usual greenhouse treatment.
1696 <i>Podolepis affinis</i>	19	54	98 N. Holland	hhA	y.	...	6-8	6	
1697 <i>auriculata</i>	...	...	...	...	...	...	...	6	
1698 <i>chrysanthemoides</i>	...	...	...	...	...	...	...	3	Pretty half-hardy Annuals: sow in slight hot-
1699 <i>gracilis</i>	...	...	N. S. Wales	...	pk.	3	7-9	3	bed and transplant.
1700 <i>— alba</i>	...	...	...	...	w.	...	...	3	
1701 <i>rugata</i>	...	...	...	...	...	...	...	3	
1702 <i>Poinciana Gilliesi</i>	10	25	132 S. America	hhS	y.	10	6-7	1 0	Magnificent plants: sow in hot-bed, and grow
1703 <i>regia</i>	...	...	Madagascar	sT	e.	20		1 0	in loam and peat.
1704 <i>Polemonium cœruleum</i>	5	...	154 Britain	hP	b.	1	6-8	3	Pretty hardy Perennials. P. cœruleum is known
1705 <i>— album</i>	...	...	...	...	w.	...	...	3	as the Jacob's Ladder of gardens. Grow in
1706 <i>villosum</i>	...	...	Siberia	...	b.	1	6-10	3	any good garden soil.
1707 <i>Polyelymna Stuarti</i>	19	54	98 Australia	hhA	y. & w.	1 $\frac{1}{2}$	7-9	3	Everlasting Flower.
1708 <i>Poly'gala attenuata</i>	17	43	155 Cape G. Hope	gS	p.	6	5-8	6	
1709 <i>bracteolata</i>	...	...	...	...	...	...	...	6	
1710 <i>cordata</i>	...	...	...	...	...	3	...	6	
1711 <i>dalmatiana</i>	...	...	...	...	...	6	5-10	6	
1712 <i>grandiflora</i>	...	...	...	...	...	4	...	6	Showy Greenhouse Shrubs: sow in mild hot-
1713 <i>— superba</i>	...	...	...	...	...	...	...	6	bed and grow in fibry peat mixed with a
1714 <i>grandis</i>	...	...	...	...	v.	...	...	6	little loam.
1715 <i>macrophy'lla</i>	...	...	...	...	...	...	...	6	
1716 <i>myrtifolia</i>	...	...	...	...	p.	3	4-5	6	
1717 <i>Ponrtalcsi</i>	...	...	...	...	...	...	...	6	
1718 <i>speciosa</i>	...	...	...	...	...	...	...	6	
1719 <i>Pomaderris apétala</i>	5	25	164 N. Holland	...	pa. y.	7	5-6	6	Usual greenhouse treatment.
1720 <i>Pontederia cordata</i>	6	...	158 N. America	hP	...	2	6-8	6	Aquatic.
1721 <i>Portulaca aurea</i>	11	...	159 S. America	hhA	o.	1	6-9	4	
1722 <i>aurea striata nova</i>	...	...	gar. var.	...	o. & e.	...	...	6	Portulacas are remarkable for brilliancy and
1723 <i>grandiflora</i>	...	...	Chili	...	y. & p.	...	...	4	richness of colour, and are adapted for
1724 <i>Thellusoni</i>	...	...	Mendoza	...	c.	...	...	4	beds, clumps, edgings, pots, vases, or rock-
1725 <i>— alba</i>	...	...	gar. var.	...	w.	...	...	4	work. P. aurea striata and Blensoni are the
1726 <i>— Blensoni</i>	...	...	...	...	ver.	...	...	6	newest and handsomest varieties. Sow in
1727 <i>— caryophylloides</i>	...	...	...	...	stri.	...	...	6	sandy peat, leaf-mould, and burnt earth;
1728 <i>— coccinea</i>	...	...	...	...	s.	...	...	4	prick off and plant in rows in the middle of
1729 <i>— lutea</i>	...	...	...	...	y.	...	...	4	June, placing an inch or two of lime-rub-
1730 <i>— rosea</i>	...	...	...	...	ro.	...	...	4	bish, burnt earth, and sand over the border,
1731 <i>— — pallida</i>	...	...	...	...	l. ro.	...	...	4	to prevent the plants from damping off.
1732 <i>— striatiflora</i>	...	...	...	...	stri.	...	...	4	These plants require scarcely any water.
1733 <i>— Thorburni</i>	...	...	...	...	y.	...	...	4	
1734 <i>splendens</i>	...	...	Chili	...	ro. p. & l.	...	...	4	
1735 <i>Potentilla aurea</i>	12	35	166 Alps	hP	gold	...	5-7	3	
1736 <i>alpestris</i>	...	...	...	...	p.	2	...	6	
1737 <i>atropurpurea</i>	...	...	gar. var.	...	e.	1 $\frac{1}{2}$	...	3	These are very handsome Herbaceous Plants,
1738 <i>atrosanguinea</i>	...	...	Nepaul	...	y.	2	7-8	6	and from their hardness and showy cha-
1739 <i>Fintelmanni</i>	...	...	hybrid	...	...	...	...	6	acter are exceedingly useful and orna-
1740 <i>insignis</i>	...	...	...	...	...	...	...	6	mental: they may be employed to advan-
1741 <i>macrantha [rea]</i>	...	...	Switzerland	...	w.	1 $\frac{1}{2}$	5-6	6	tage in filling up vacant nooks and corners;
1742 <i>maculata sulphu-</i>	...	...	hybrid	...	y. spot.	2	6-8	6	even in single plants, and in all situations,
1743 <i>— plena</i>	...	...	...	...	y. & pk.	1 $\frac{1}{2}$	...	6	their neatness of foliage and long duration
1744 <i>Macayana</i>	...	...	...	...	o. r.	...	7-9	6	in bloom render them objects of desire.
1745 <i>MacNabiana</i>	...	...	...	...	s.	3	8-9	6	The dwarf varieties will be found useful in
1746 <i>Menziesi</i>	...	...	N. America	...	y.	1	6-9	6	rockeries. Some of the best kinds are
1747 <i>missourica</i>	...	...	Nepaul	...	...	...	...	6	printed in <b>black type</b> . Sow in a well-
1748 <i>nepalensis</i>	...	...	E. Indies	...	...	...	...	6	mixed border, and transplant in the au-
1749 <i>Planti</i>	...	...	hybrid	...	...	...	...	6	tumn or the following spring.
1750 <i>pulcherrima</i>	...	...	Italy	...	y.	...	...	3	
1751 <i>Thomasi</i>	...	...	...	...	...	...	...	6	
1752 <i>Prenanthes viminea</i>	19	53	98	...	...	3	7-8	6	Good garden soil.



Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
1753 <i>Primula cortusoides</i>	2	25	160	Siberia	hP†	r.	1	5-7	6	Fringed Chinese Primrose. Sow under glass in heat; grow in sandy loam and very sweet leaf-mould; keep in shady but not damp place, and near the glass in winter in greenhouse.
1754 <i>sinensis, choice fringed</i>	...	...	...	seedlings	gA	div.	...	10-2	10	
1755 — <i>dark carmine</i>	...	...	...	...	...	d. car.	...	...	2	
1756 — <i>rose</i>	...	...	...	...	...	...	...	...	2	
1757 — <i>white</i>	...	...	...	...	...	...	...	...	2	Common field Primrose.
1758 <i>vulgaris (Primrose)</i>	...	...	...	Britain	hP	div.	3	3-4	6	
1759 <i>Prostanthera nivea</i>	14	58	130	N. S. Wales	gS	p.	2	7-8	6	Usual greenhouse treatment.
1760 <i>Prœtea, fine mixed</i>	4	25	161	E. Indies	hP†	div.	div.	...	6	Magnificent Evergreen Greenhouse Shrubs.
1761 <i>Prunella grandiflora</i>	14	58	130	Austria	hP†	l. b.	1	7-9	6	
1762 <i>Prunus Lauro-cerasus</i>	12	25	166	Levant	hS	w.	12	4-5	3	} Good garden soil.
1763 <i>Psidium Cattleianum</i>	13	...	181	...	...	...	...	...	6	
1764 <i>Psoralea aculeata</i>	17	45	132	C. G. Hope	gS	b.	4	6-7	6	Ornamental Greenhouse Shrubs. Sow in slight hot-bed in April, pot off, and grow in fibry peat and loam in a cool shady place.
1765 <i>aphylla</i>	...	...	...	...	...	...	2	...	6	
1766 <i>capitata</i>	...	...	...	...	...	p.	...	7-8	6	
1767 <i>pinnata</i>	...	...	...	...	...	b.	6	5-7	6	
1768 <i>spicata</i>	...	...	...	...	...	...	...	...	6	} Usual greenhouse treatment.
1769 <i>strobilina</i>	...	...	...	...	...	b.	6	5-7	6	
1770 <i>Ptarmica grandiflora</i>	...	...	...	...	gP	...	...	...	6	} Usual greenhouse treatment.
1771 <i>Pultenaea daphnoides</i>	10	25	132	N. S. Wales	gS	y.	2	6-7	6	
1772 <i>Punica Granatum</i>	12	...	142	S. Europe	hS	s.	18	6-9	6	} P. nanum forms a charming little bush, covered with scarlet blossoms.
1773 — <i>nanum</i>	...	...	...	...	...	...	2	...	6	
1774 <i>Pyræthrum carneum</i>	19	54	98	...	hP	flsh.	...	...	6	} Feverfew: very ornamental Perennials; contrasting well with scarlet Geraniums, &c.
1775 <i>Parthenium fl. pl.</i>	...	...	...	Britain	...	w.	...	...	6	
1776 <i>finest French vars.</i>	...	...	...	seedlings	...	div.	...	...	10	} Sow on heat.
1777 <i>Rafnia triflora</i>	17	45	132	C. G. Hope	gP	p.	3	6-7	6	
1778 <i>Ranunculus, mixed</i>	11	35	162	Levant	hPb	div.	3	5-6	6	} Requires a deep, rich soil.
1779 <i>Reseda erecta</i>	...	28	163	S. Europe	hA	buff.	1	6-9	3	
1780 <i>myriophylla</i>	...	...	...	Italy	hP	st.	2	6-8	3	} Various kinds of Mignonette.
1781 <i>Phyteuma</i>	...	...	...	S. Europe	hA	ap.	1	6-9	3	
1782 <i>Rhamnus Alaternus</i>	5	25	164	...	hS	g.	20	4-6	3	} Ordinary garden soil.
1783 <i>Rhodanthe Manglesi</i>	19	54	98	Swan River	hA	ro. & y.	1	5-11	6	
1784 <i>Rhododendron arboreum</i>	10	25	165	Nepaul	hH†	s.	20	5-6	10	} Handsome Everlasting Flower.
1785 — <i>album</i>	...	...	...	...	...	w.	...	...	10	
1786 <i>campanulatum</i>	...	...	...	...	hS	p.	4	4-5	10	} These remarkably handsome Shrubs are to be met with at nearly all Floral Exhibitions, of which they form a chief feature. Sow in heat in pans, transplant, and grow in a mixture of loam and peat.
1787 <i>maximum</i>	...	...	...	gar. var.	...	...	...	...	10	
1788 <i>ponticum</i>	...	...	...	...	...	div.	...	...	10	
1789 <i>finest hybrids</i>	...	...	...	hybrids	hS	...	...	5-7	10	
1790 <i>Ricinus africanus</i>	21	49	112	Africa	hA	g.	15	7-8	4	} These rapid-growing plants are highly ornamental for large gardens, and for backgrounds and centres of beds are extremely useful: their large and handsome foliage and various-coloured fruit render them striking and desirable. Sow on heat and transplant.
1791 — <i>albus</i>	...	...	...	...	...	w.	...	...	4	
1792 <i>brasilensis</i>	...	...	...	gar. var.	...	r.	...	...	6	
1793 <i>lencocarpus</i>	...	...	...	...	...	...	...	...	4	
1794 <i>lividus</i>	...	...	...	C. G. Hope	...	p.	8	...	6	
1795 <i>macrocarpus</i>	...	...	...	...	...	s.	...	...	6	
1796 <i>Obermanni</i>	...	...	...	gar. var.	...	g.	7	...	4	
1797 <i>pumiceus</i>	...	...	...	...	...	e.	...	...	4	
1798 <i>purpureus</i>	...	...	...	...	...	p.	...	...	4	
1799 — <i>major</i>	...	...	...	...	...	...	...	...	6	
1800 <i>sanguineus</i>	...	...	...	...	...	r.	...	...	4	
1801 — <i>minor</i>	...	...	...	...	...	...	...	...	4	
1802 <i>spectabilis</i>	...	...	...	...	...	g.	...	...	4	} Pretty Climber.
1803 <i>tuniciensis</i>	...	...	...	...	...	...	...	...	4	
1804 <i>undulatus</i>	...	...	...	...	...	g.	...	...	6	
1805 <i>viridis</i>	...	...	...	...	...	...	...	...	4	
1806 <i>Rivea bona nox</i>	5	25	100	W. Indies	...	w.	10	7-10	6	} Curious Herbaceous plants. Sow out of doors in April.
1807 <i>Romeria hybrida</i>	...	...	...	...	...	...	...	...	6	
1808 <i>Rubingia parviflora</i>	...	...	...	...	...	...	...	...	6	
1809 <i>Rudbeckia amplexicaulis</i>	19	55	98	Louisiana	hA	y.	3	7-9	3	
1810 <i>bicolor</i>	...	...	...	...	...	...	...	...	6	} Good garden soil.
1811 <i>fulgida</i>	...	...	...	N. America	hP	...	...	...	6	
1812 <i>laciniata</i>	...	...	...	...	...	...	6	...	6	
1813 <i>Neumannii</i>	...	...	...	...	...	...	2	...	6	
1814 <i>Ruscus aculeatus</i>	22	49	74	England	hS	g.	1	6-12	6	} Strikingly beautiful tender Annual.
1815 <i>racemosus</i>	...	...	...	...	...	...	...	...	6	
1816 <i>Ruta bracteosa</i>	10	25	168	S. Europe	hP	...	3	6-9	6	} Beautiful Annuals, with large richly-coloured, delicately veined and mottled blossoms: on close inspection the blooms will be found to have a rich velvety softness seldom seen on other flowers. Salpiglossis delight in a rich light soil, and may be treated in general in the same manner as Calliopsis.
1817 <i>Sabbatia campestris</i>	5	...	118	Texas	hA	ro. y.	1	7-9	10	
1818 <i>Sagalgina trilobata</i>	...	...	...	...	...	...	...	...	6	
1819 <i>Salpiglossis, choice mix.</i>	14	59	178	gar. var.	hA	div.	2	7-9	6	
1820 <i>Barclayana</i>	...	...	...	Chili	...	r.	...	...	6	
1821 — <i>atrococcinea</i>	...	...	...	gar. var.	...	d. s.	...	...	6	
1822 — <i>atropurpurea</i>	...	...	...	...	...	d. p.	...	...	4	
1823 — <i>azurea</i>	...	...	...	...	...	b.	...	...	4	
1824 — <i>pieta</i>	...	...	...	...	...	...	...	...	6	
1825 — <i>coccinea</i>	...	...	...	...	...	s.	...	...	4	
1826 — <i>splendens</i>	...	...	...	...	...	...	...	...	6	

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
1827 <i>Salpiglossis sulphurea</i>	14	59	176	gar. var.	hhA	y.	2	7-9	4	For observations on <i>Salpiglossis</i> see preceding page.
1828 <i>nana atropurpurea</i>	...	...	...	...	...	p.	...	...	6	
1829 <i>cærulea</i>	...	...	...	...	...	b.	1	...	6	
1830 <i>coccinea</i>	...	...	...	...	...	s.	...	...	6	
1831 <i>sulphurea</i>	...	...	...	...	...	y.	...	...	6	Good garden soil.
1832 <i>Salsola australis</i>	5	26	94	Australia	hA	...	...	...	3	
1833 <i>Salvia amabilis</i>	2	25	130	S. Europe	hP	r.	2	5-8	6	
1834 <i>argentea</i>	...	...	...	Crete	...	w.	3	5-7	6	
1835 <i>aurea</i>	...	...	...	C. G. Ilope	hhP	y.	...	4-5	6	All the varieties of this genus are pretty, and some very beautiful. <i>S. splendens</i> has fine large scarlet blossoms. <i>S. splendens compacta</i> is the finest <i>Salvia</i> grown, being literally covered with blossom. <i>S. coccinea</i> and its varieties are very free bloomers, and their universal appearance in nearly every garden proves their merits. <i>S. pateus</i> is the brightest and purest of all blue-flowered plants, and holds a pre-eminent position among bedding plants. <i>S. Roemeriana</i> has a neat crimson blossom, though of a much dwarfier habit than the varieties previously recommended. Half-hardy varieties, such as <i>coccinea</i> and <i>splendens</i> , sow on heat and transplant, and grow in loam and peat. <i>S. argentea</i> has large silvery leaves.
1836 <i>bicolor</i>	...	...	...	Barbary	hP	s. & w.	2	6-7	6	
1837 <i>coccinea</i>	...	...	...	S. America	hhA	s.	...	6-10	4	
1838 <i>— nana</i>	...	...	...	gar. var.	...	...	1	...	6	
1839 <i>— nova var.</i>	...	...	...	...	...	...	2	...	6	
1840 <i>— hybrida</i>	...	...	...	...	...	...	...	...	6	
1841 <i>— splendens</i>	...	...	...	...	...	...	...	...	6	
1842 <i>— superba</i>	...	...	...	...	...	...	...	...	6	
1843 <i>gigantea</i>	...	...	...	Europe	hB	w.	4	7-8	6	
1844 <i>Kochiana</i>	...	...	...	...	...	r.	...	...	3	
1845 <i>pateus</i>	...	...	...	Mexico	hhB	b.	2	7-9	1 0	The best and longest-blooming of all dwarf Annuals, producing masses of minute cross-shaped rose-coloured blossoms: admirable for bedding. No. 1854 is a new pure white variety.
1846 <i>Roemeriana</i>	...	...	...	...	hhA	c.	...	6-9	4	
1847 <i>splendens</i>	...	...	...	...	hhP	s.	3	...	1 0	
1848 <i>— compacta</i>	...	...	...	gar. var.	...	...	1½	...	1 0	
1849 <i>verticillata</i>	...	...	...	Germany	hP	b.	2	5-6	4	
1850 <i>Sanguisorba canadensis</i>	4	...	185	Canada	...	w.	3	6-7	6	
1851 <i>carnea</i>	...	...	...	...	...	r.	2	...	6	
1852 <i>Sanvitalia procumbens</i>	19	54	98	Mexico	hA	y.	½	7-8	3	
1853 <i>Saponaria calabrica</i>	10	26	91	Calabria	...	v.	...	6-10	6	
1854 <i>— alba</i>	...	...	...	gar. var.	...	w.	...	...	1 0	
1855 <i>rosea</i>	...	...	...	...	...	ro.	...	...	6	A fine class of Mountain plants, admirable for rockeries. Produces curious white berries.
1856 <i>ocymoides</i>	...	...	...	Levant	hP	r.	½	...	6	
1857 <i>Saxifraga, fine mixed</i>	10	...	173	div.	...	div.	div.	...	6	
1858 <i>vaccaria</i>	...	...	...	Britain	...	r.	1	5-7	6	
1859 <i>Schimus Molle</i>	22	15	179	Peru	hhS	g.	12	7-8	6	
1860 <i>Schizanthus Grahami</i>	2	25	175	Chili	hhA	r. & o.	2	6-8	4	
1861 <i>Hookeri</i>	...	...	...	...	...	...	...	...	4	
1862 <i>retusus</i>	...	...	...	...	...	s. & o.	...	...	4	
1863 <i>— albus</i>	...	...	...	...	...	w.	...	...	4	
1864 <i>gracilis</i>	...	...	...	...	...	p.	...	...	3	
1865 <i>— lilacinus novus</i>	...	...	...	...	...	li.	...	...	6	These, if sown in a little heat at the end of March, and planted out at the beginning of May, will make fine large beds in the autumn; if sown in September, potted off separately, and kept over the winter in the greenhouse, they will there form fine objects from May onwards: grow in rich sandy loam. Hardy kinds sow in the open borders.
1866 <i>humilis</i>	...	...	...	Valparniso	...	li. & e.	¾	6-11	3	
1867 <i>oculatus grandiflorus</i>	...	...	...	gar. var.	...	dp. & ro.	1	6-10	6	
1868 <i>pinatus</i>	...	...	...	Chili	hA	ro. p.	...	...	3	
1869 <i>— obtusifolius</i>	...	...	...	...	...	...	...	...	3	
1870 <i>— Priesti</i>	...	...	...	...	...	w.	...	...	3	
1871 <i>— porrigens</i>	...	...	...	...	...	...	...	...	3	
1872 <i>— pulchellus</i>	...	...	...	...	...	var.	...	...	3	
1873 <i>— venustus</i>	...	...	...	...	...	...	...	...	3	
1874 <i>Schizopetalon Walkeri</i>	15	60	103	...	...	w.	¾	5-8	3	Very pretty fragrant Annual.
1875 <i>Schistanthe pedunculata</i>	6	25	65	...	...	...	...	...	3	
1876 <i>Sclerothermus diffusus</i>	10	...	132	N. Holland	gS	y.	1	4-7	6	Usual greenhouse treatment.
1877 <i>Scilla bifolia</i>	6	...	74	England	hPb	d. p.	...	2-4	6	
1878 <i>Scorzonera tingitana</i>	19	53	98	Europe	hP	y.	...	5-6	3	Good garden soil.
1879 <i>Scutellaria commutata</i>	14	58	130	Hungary	...	p.	...	7-9	6	
1880 <i>Scyphanthus elegans</i>	18	48	135	Chili	hhP	y.	2	...	6	Beautiful Loasa-like Climber.
1881 <i>Sedum cæruleum</i> [**]	10	30	176	Africa	hP	b.	½	7-8	3	
1882 <i>Jacquinii</i>	...	...	...	...	...	...	1	...	3	Stoncrop: the different varieties of <i>Sedum</i> are extremely useful for rockeries and covering ornamental mounds; and their neat foliage and innumerable pink, blue, and yellow blossoms render them objects of great admiration.
1883 <i>kamtschatkense</i>	...	...	...	Kamtschatka	...	o.	½	...	3	
1884 <i>maximum</i>	...	...	...	Spain	...	w.	2	...	3	
1885 <i>pulehrum</i>	...	...	...	Europe	...	...	...	...	3	
1886 <i>rupestre</i>	...	...	...	N. America	...	...	½	...	3	
1887 <i>Setaria macrochaeta</i>	3	26	123	...	hA	ap.	2	...	3	Ornamental Grass.
1888 <i>Sida angustifolia</i>	16	48	137	Brazil	gP	y.	1½	7-9	6	
1889 <i>Beriana</i>	...	...	...	S. Europe	...	...	...	...	6	Handsone free-flowering Malvaceous Plants; fine ornaments for the greenhouse or stove.
1890 <i>grandiflora</i>	...	...	...	...	gT	...	20	11-12	6	
1891 <i>graveolens</i>	...	...	...	E. Indies	gB	v.	1	7-8	6	
1892 <i>indica</i>	...	...	...	India	sA	...	1½	...	6	
1893 <i>pulehella</i>	...	...	...	W. Indies	gP	y.	4	...	6	
1894 <i>pyracantha</i>	...	...	...	Brazil	gS	...	3	6-7	6	Catchfly. The tribe of <i>Silene</i> comprises many bright ornaments for the general flower-garden, both in brilliancy of colour and length of duration in bloom.
1895 <i>tiliacea</i>	...	...	...	China	gA	...	2	7-8	6	
1896 <i>Silene atrovirens</i>	10	28	91	gar. var.	...	ro.	...	...	3	
1897 <i>Bergeri</i>	...	...	...	...	...	...	...	...	6	
1898 <i>compacta</i>	...	...	...	Caucasus	...	pk.	1½	7-9	3	
1899 <i>integrifolia</i>	...	...	...	gar. var.	...	ro.	...	...	6	
1900 <i>maritima</i>	...	...	...	Britain	hP	w.	¾	...	3	

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght. feet	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.									s. d.	
1901 <i>Silene nana</i>	10	28	91	gar. var.	hA	ro.	1	6-9	3	The dwarf varieties, such as <i>S. Schafta</i> , are adapted for rockwork, beds, or mixed borders. <i>S. pendula</i> is an extremely free bloomer, and can be strongly recommended as exceedingly effective. <i>S. pseudo-Atocion</i> is a very fine flower, admirably adapted for the formation of beds, and contrasts well with <i>Nemophila insignis</i> . All are very free growing, but are more showy if carefully treated by being sown under protection in light rich soil and transplanted to borders in May.
1902 <i>orientalis</i>	...	...	...	...	hB	p.	1	5-9	3	
1903 <i>ornata</i>	...	...	...	Cape G. Hope	...	w.	...	...	3	
1904 — <i>alba</i>	...	...	...	...	hA	r.	...	...	3	
1905 <i>pendula</i>	...	...	...	Sicily	...	w.	...	...	3	
1906 — <i>alba</i>	...	...	...	...	...	r.	2	6-9	3	
1907 <i>pieta</i>	...	...	...	gar. var.	hP	pk.	...	6-7	6	
1908 <i>procumbens</i>	...	...	...	Siberia	hA	...	1	...	6	
1909 <i>pseudo-Atocion</i>	...	...	...	N. Africa	...	...	...	...	3	
1910 <i>pulchella</i>	...	...	...	...	...	blood.	...	6-8	3	
1911 <i>quinquevulnera</i>	...	...	...	England	hP	e.	1½	5-8	3	
1912 <i>regia</i>	...	...	...	N. America	hA	flsh.	3	5-6	3	
1913 <i>rubella</i>	...	...	...	Portugal	...	w.	...	...	3	
1914 — <i>alba</i>	...	...	...	...	hP	r. & p.	...	6-10	3	
1915 <i>Schafta</i>	...	...	...	Russia	...	y.	1	...	3	
1916 <i>squamigera</i>	...	...	...	...	...	...	6	7-10	6	Good garden soil.
1917 <i>Silphium commutatum</i>	19	55	98	N. America	...	w. & g.	8	8-9	6	
1918 <i>Smilax aspera</i>	22	40	177	S. Europe	hHP	...	...	...	6	
1919 <i>mauritanica</i>	...	...	...	...	gS	d. r.	3	6-9	6	
1920 <i>Solanum atropurpureum</i>	5	25	178	gar. var.	...	v.	4	...	6	
1921 <i>auriculatum</i>	...	...	...	Madagascar	...	w.	...	7-8	6	These plants may be considered as Half-hardy, and are particularly ornamental in their fruit, which varies from the size of a Spanish Nut to a Tomato. <i>S. jasminoides</i> is a very elegant Climber for greenhouse decoration. <i>S. Capsicastrum</i> is also a very interesting ornamental plant for the decoration of the greenhouse or conservatory, and resembles a miniature Orange Tree. Sow in sandy loam and peat in hot-bed, and grow afterwards in good garden soil wherever it may be desirable.
1922 <i>Balbisi</i>	...	...	...	S. America	...	pk.	...	6-7	6	
1923 <i>betaceum</i>	...	...	...	...	...	...	3	...	6	
1924 <i>cabiliense argenteum</i>	...	...	...	Brazil	...	w.	1	7-9	6	
1925 <i>Capsicastrum</i>	...	...	...	S. America	...	...	4	...	6	
1926 <i>citralifolium</i>	...	...	...	...	gT	v.	15	6-7	6	
1927 <i>giganteum</i>	...	...	...	Cape G. Hope	...	w.	2	...	6	
1928 <i>heterogynum</i>	...	...	...	S. America	...	...	...	...	6	
1929 <i>Hystrix</i>	...	...	...	...	...	p.	6	7-8	6	
1930 <i>indicum</i>	...	...	...	India	gA	...	2	9-11	6	
1931 <i>Jaquinii</i>	...	...	...	E. Indies	gS	pa. b.	8	8-12	6	
1932 <i>jasminoides**</i>	...	...	...	S. America	...	v.	3	7-8	6	
1933 <i>laciniatum</i>	...	...	...	N. Holland	...	w.	4	6-9	6	
1934 <i>pseudo-Capsicum</i>	...	...	...	Madeira	...	r.	...	8-9	6	
1935 <i>pyracanthum</i>	...	...	...	Madagascar	...	v.	3	6-7	6	
1936 <i>sodomum</i>	...	...	...	Africa	...	...	...	...	6	Sow on a little heat, and grow in loam and peat.
1937 <i>species nova</i>	...	...	...	gar. var.	hhA	li.	2	6-10	6	
1938 <i>texanum</i>	...	...	...	Texas	gS	p.	...	...	6	
1939 <i>vescum</i>	...	...	...	...	...	b.	5	7-8	6	
1940 <i>Sollya heterophylla**</i>	...	...	152	N. Holland	...	...	...	...	6	
1941 <i>salicifolia**</i>	...	...	...	...	hT	w.	40	8-9	6	Mixture of loam and peat.
1942 <i>Sophora japonica</i>	10	...	132	Japan	hA	ap.	3	7-8	3	
1943 <i>Sorghum bicolor</i>	23	51	123	Persia	...	...	...	...	6	Ornamental Grass.
1944 <i>ceruum</i>	...	...	...	...	hS	y.	6	7-9	6	
1945 <i>Spartium junceum</i>	17	45	132	S. Europe	...	...	3	1-6	6	Good garden soil.
1946 <i>limifolium</i>	...	...	...	Spain	hP	w.	3	6-8	6	
1947 <i>Spergula pilifera</i>	10	30	91	Corsica	...	...	...	...	6	Admirable substitutes for Grass; see p. 118.
1948 <i>saginoides</i>	...	...	...	...	hA	pa. y.	1	7-8	3	
1949 <i>Sphenogyne speciosa</i>	19	55	98	S. America	hS	ro.	3	...	6	Very showy Annual.
1950 <i>Spiraea angustifolia</i>	12	27	166	...	...	...	4	...	6	
1951 <i>callosa</i>	...	...	...	China	...	...	...	...	6	
1952 <i>Fortunei</i>	...	...	...	...	...	...	8	...	6	
1953 <i>Lindleyana</i>	...	...	...	N. America	...	pk.	...	...	6	
1954 <i>venusta</i>	...	...	...	...	...	...	...	...	6	Fine ornaments for Shrubberies: sow in cold pit in April, and protect at first; grow in good, deep, loamy soil.
1955 <i>Sporobolus tenuissimus</i>	3	26	132	E. Indies	hhS	ap.	3	7-9	6	
1956 <i>Spraguea umbellata</i>	5	25	64	California	hhA	ro.	...	7-10	10	
1957 <i>Stachys coccinea</i>	14	58	130	S. America	...	s.	3	6-8	6	
1958 <i>Stachys bellidifolia</i>	5	50	153	Greece	hP	l. b.	1	...	6	
1959 <i>Bonduelli</i>	...	...	...	Europe	hhP	y.	1	...	4	These Herbaceous Plants are very beautiful, and are worthy of more extensive cultivation than has hitherto been bestowed upon them. <i>S. Bonduelli</i> has fine masses of yellow blossom. <i>S. Halfordi</i> is a beautifully compact plant, with large leaves and fine heads of blue flowers; good for conservatory or greenhouse decoration. <i>S. incana</i> is a charming plant forming a mass of bloom, the shape of the entire plant resembling an inverted basin. Sow all the varieties in a cold pit, and keep shaded until the plants appear; grow in well-drained pots, in a mixture of fibry sandy loam, peat, broken sandstone, &c. &c.
1960 <i>formosa</i>	...	...	...	Europe	hP	pk.	...	5-10	4	
1961 <i>Fortunei</i>	...	...	...	China	hhP	y.	...	7-10	6	
1962 <i>globularifolia</i>	...	...	...	Sicily	...	w.	...	5-9	6	
1963 <i>Halfordi</i>	...	...	...	gar. var.	gS	b.	2	7-9	10	
1964 <i>incana</i>	...	...	...	Egypt	hhP	pk. & w.	1	6-8	6	
1965 <i>latifolia</i>	...	...	...	Siberia	hP	b.	...	5-7	6	
1966 <i>lychnidifolia</i>	...	...	...	S. Europe	...	pk.	...	4-8	6	
1967 <i>pseudo-Arméria</i>	...	...	...	gar. var.	...	...	...	...	3	
1968 <i>sareptina</i>	...	...	...	S. Europe	...	...	...	...	6	
1969 <i>sinuata</i>	...	...	...	Levant	hhP	l. o. y.	...	5-9	6	
1970 <i>texana</i>	...	...	...	Texas	hP	b. & ro.	...	...	6	
1971 <i>Tormentilla</i>	...	...	...	Europe	...	...	...	...	6	
1972 <i>triuervis</i>	...	...	...	...	...	...	...	...	6	
1973 <i>Stenactis bellidifolia</i>	19	53	98	California	...	p.	2	7-10	3	Common garden soil.
1974 <i>speciosa</i>	...	...	...	...	...	...	...	...	3	



Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Height.	N. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
1975 <i>Stereulia platanifolia</i>	22	37	83	China	gS	g.	30	6-7	3	Sow on heat.
1976 <i>Stèvia serrata</i>	19	53	98	Mexico	hP	flsh.	1½	7-9	3	Good garden soil.
1977 <i>Stipa capillata</i>	3	26	123	Europe	hP†	ap.	2	7-8	3	Ornamental Grasses. <i>S. pennata</i> is the well-known Feather Grass; all the varieties are graceful.
1978 <i>juncea</i>	...	...	...	France	...	...	...	...	3	
1979 <i>pennata</i>	...	...	...	Britain	...	...	...	...	3	
1980 <i>Streptocarpus Rexi</i>	2	25	106	Cape G. Hope	sP	b.	½	1-12	1 0	Sow on heat.
1981 <i>Styrax officinalis</i>	10	...	193	Italy	hS	w.	12	7-8	3	Garden soil.
1982 <i>Sutherlandia frutescens</i>	17	45	132	Cape G. Hope	hhS	s.	3	6-7	6	Fine Shrubs, similar to <i>Clianthus</i> , and may be similarly treated.
1983 <i>australis, new</i>	...	...	...	...	...	...	...	...	1 0	
1984 <i>Swainsonia alba</i>	...	...	...	N. S. Wales	...	w.	2	7-9	6	These Shrubs are highly ornamental, both in foliage and blossom. Steep the seeds in water at 125° for six hours; then sow on gentle heat, and harden off for greenhouse, conservatory, or south wall in garden.
1985 <i>alba violacea</i>	...	...	...	gar. var.	...	v.	...	...	6	
1986 <i>Greyana</i>	...	...	...	N. S. Wales	...	p. & w.	...	7-8	6	
1987 <i>lessertiaefolia</i>	...	...	...	N. Holland	...	p.	...	6-8	6	
1988 <i>Osborni</i>	...	...	...	...	...	r. & y.	...	8-10	6	
1989 <i>— grandiflora</i>	...	...	...	...	...	...	...	...	6	
1990 <i>rosea</i>	...	...	...	N. S. Wales	...	ro.	...	7-9	6	
1991 <i>Tagelia bituminosa</i>	10	25	...	E. Indies	...	y.	3	...	6	
1992 <i>Tagetes lucida</i>	19	54	98	S. America	hhP	o.	...	7-10	3	
1993 <i>signata</i>	...	...	...	Peru	hhA	y.	2	8-9	3	Sow in heat, and transplant to borders in April.
1994 <i>tenuifolia</i>	...	...	...	...	...	...	...	...	3	
1995 <i>Tecoma stans</i>	15	59	79	America	gS	...	12	7-9	6	Usual greenhouse treatment.
1996 <i>Telckia cordifolia</i>	19	54	98	Hungary	hP	...	4	6-8	6	Good garden soil.
1997 <i>Telèphium Imperatii</i>	5	28	159	S. Europe	...	w.	½	...	6	
1998 <i>Templetonia glauca</i>	17	45	132	N. Holland	gS	ro.	3	4-5	6	Rare and fine: same culture as for <i>Swainsonia</i> .
1999 <i>retusa</i>	...	...	...	...	...	r.	2	3-6	6	
2000 <i>Tenerium flavum</i>	14	58	130	S. Europe	gP	...	...	7-9	6	Sow in paus, and transplant.
2001 <i>Thalia dealbata</i>	1	25	88	S. Carolina	hP	b.	4	...	6	Aquatic.
2002 <i>Thuja articulata</i>	21	49	99	Barbary	hhT	ap.	15	2-5	6	
2003 <i>Bermudiana</i>	...	...	...	Bermuda	...	...	6	5-6	6	These are very handsome Trees, and are ornamental from their earliest growth; they are in general hardy, and in a soil made of loam and peat flourish luxuriantly; they may be grown as pot plants to ornament conservatories or balconies; in the general garden also they are very attractive. We can cordially recommend all the varieties to the admirers of compact evergreen Shrubs.
2004 <i>Biota compacta</i>	...	...	...	Japan	...	...	5	2-5	6	
2005 <i>— aurea</i>	...	...	...	...	...	...	...	...	1 0	
2006 <i>— hybrida</i>	...	...	...	S. Europe	...	...	10	...	6	
2007 <i>— intermedia</i>	...	...	...	Japan	...	...	15	...	6	
2008 <i>— orientalis</i>	...	...	...	China	...	...	25	5-6	6	
2009 <i>— — aurea</i>	...	...	...	...	...	...	3	...	1 0	
2010 <i>— plicata</i>	...	...	...	Nootka Sound	...	...	...	...	6	
2011 <i>— pyramidalis</i>	...	...	...	Italy	...	...	20	...	6	
2012 <i>— striata</i>	...	...	...	China	...	...	15	...	6	
2013 <i>— tartarica</i>	...	...	...	Tartary	...	...	...	2-3	6	
2014 <i>nepalensis</i>	...	...	...	Nepal	hT	...	20	...	6	
2015 <i>Thunbergia alata**</i>	14	59	63	E. Indies	gA	bff. & d.	4	5-9	4	Extremely ornamental Climbers, much admired, very free bloomers. Sow in strong hot-bed in April, after moistening the seed: pot first into sandy loam and peat, afterwards use a good portion of poor lime-rubbish, which will cause masses of bloom to be thrown up. Good for trellis, stems of trees, &c., in a greenhouse, or out of doors in summer in a warm situation: water freely.
2016 <i>— alba**</i>	...	...	...	gar. var.	...	w. & d.	...	...	4	
2017 <i>— americana**</i>	...	...	...	...	...	buff	...	...	4	
2018 <i>— aurantiaca**</i>	...	...	...	...	...	o.	...	...	4	
2019 <i>— Bakeri**</i>	...	...	...	...	...	w.	...	...	4	
2020 <i>— flava**</i>	...	...	...	...	...	y.	...	...	4	
2021 <i>— Frieri**</i>	...	...	...	...	...	w.	...	...	4	
2022 <i>— intus candida**</i>	...	...	...	...	...	...	...	...	4	
2023 <i>— mesoleuca**</i>	...	...	...	...	...	o. & y.	...	...	4	
2024 <i>— sulphurea**</i>	...	...	...	...	...	sul.	...	...	4	
2025 <i>— fragrans**</i>	...	...	...	E. Indies	...	w.	...	...	1 0	
2026 <i>— lamiifolia**</i>	...	...	...	...	...	...	...	...	1 0	
2027 <i>Tithonia tagetiflora</i>	19	55	98	Vera Cruz	hhPb	o.	1	7-10	4	Light rich soil.
2028 <i>Tournefortia heliotropioides</i>	5	25	91	Buenos Ayres	sS	pa. li.	2	5-6	1 0	Splendid Stove Shrub.
2029 <i>Trachelium caeruleum</i>	...	...	87	Italy	hB†	b.	...	7-9	3	Pretty Campanula-like plants.
2030 <i>— album</i>	...	...	...	...	...	w.	...	...	3	
2031 <i>Tricholena rosea [brina]</i>	3	26	123	S. Europe	hA	ap.	...	7-8	6	Ornamental Grass.
2032 <i>Trichosanthes colu-</i>	21	49	104	E. Indies	hhA	w.	4	6-9	6	True Serpent Cucumber.
2033 <i>Trifolium arvense</i>	17	45	132	N. Africa	hA	ap.	1	...	6	
2034 <i>atropurpureum</i>	...	...	...	Italy	...	p.	...	...	3	Ornamental Grasses. <i>T. arvense</i> , see list of Novelties, page 114.
2035 <i>aurantiacum</i>	...	...	...	...	...	y.	...	...	3	
2036 <i>pannonicum [des]</i>	...	...	...	Hungary	...	w. & y.	...	6-7	3	
2037 <i>Tripsacum dactylo-</i>	21	38	123	Virginia	hP	ap.	4	8-9	6	
2038 <i>Tritoma Uvaria</i>	6	25	125	Cape G. Hope	hPb	s. & o.	2	...	1 0	Superb bulbous plant: sow in paus.
2039 <i>Tropeolum Jarratti**</i>	8	...	182	Santiago	gPb	s. & y.	12	7-9	1 0	These elegant climbing plants, which are yearly rising in repute, are very beautiful. The brilliance of the Lobbianum varieties renders them invaluable adjuncts to the greenhouse, conservatory, and general flower-garden. General treatment: sow under glass in April, protect from frost, and plant out in May; the tuberous-rooted varieties require greater care and stronger heat, with a rich, open soil.
2040 <i>Lobbianum**</i>	...	...	...	Columbia	hhA	o. & s.	6	...	4	
2041 <i>— Caroline Schmidt**</i>	...	...	...	gar. var.	...	s.	...	...	4	
2042 <i>— Lilli Schmidt**</i>	...	...	...	...	...	...	...	...	4	
2043 <i>— Brilliant**</i>	...	...	...	...	...	d. s.	...	...	6	
2044 <i>— Schultzi**</i>	...	...	...	...	...	...	...	...	6	
2045 <i>— Cavour**</i>	...	...	...	...	...	o. spot.	...	...	1 0	
2046 <i>— Comte de Morny**</i>	...	...	...	...	...	stri.	...	...	1 0	
2047 <i>— Garibaldi**</i>	...	...	...	...	...	s. spot.	...	...	1 0	
2048 <i>— Géant d. Batailles**</i>	...	...	...	...	...	ear.	...	...	1 0	

Scientific Name.		L. C.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.	[Eugenie**							feet	s. d.		
2049	Tropæolum Lohb., Imp.	8	23	182	gar. var.	hhA	var.	6	7-9	1 0	T. peregrinum, or <i>Canary-bird Creeper</i> , must not be crowded with other plants, otherwise it will not succeed well. T. minus and varieties are good for edgings. T. Brilliant and Schultzi have rich scarlet flowers, with dark foliage, the contrast being strikingly effective. T. Cavour, <i>fine brilliant red, bordered with yellow</i> . T. Impératrice Eugénie, <i>finely formed, fine clear red, spotted and striped with yellow</i> . T. pentaphyllum makes an elegant out-door climber, with trefoil foliage and handsome bloom. For general observations on the description and cultivation see page 33. The varieties under T. majus are better known as improved varieties of the tall Nasturtium. T. Scheuermannianum is of a very fine cream-colour with crimson blotches. T. carneum is delicately flamed; and the new bronze variety is a most curious plant.
2050	— Monsieur Colmet**	...	...	...	...	...	y. & car.	...	...	1 0	
2051	— Napoléon III.**	...	...	...	...	...	ver. str.	...	...	1 0	
2052	— Perraguanum**	...	...	...	...	...	s. & blk.	...	...	1 0	
2053	— Pres. Davis**	...	...	...	...	...	car. & y.	...	...	1 0	
2054	— Queen Victoria**	...	...	...	...	...	stri.	...	...	1 0	
2055	— Roi des Noirs**	...	...	...	...	...	blk.	...	...	1 0	
2056	— Triom. de Gand**	...	...	...	...	...	s.	...	...	6	
2057	Moritzianum**	...	...	...	Cumana	gPb	y. & r.	...	7-8	1 0	
2058	pentaphyllum**	...	...	...	Buenos Ayres	...	r. g. & p.	4	7-9	6	
2059	speciosum**	...	...	...	Chiloe	hhP+	s.	10	6-9	1 0	
2060	tricolor**	...	...	...	Valparaiso	gPb	s. & p.	12	...	1 0	
2061	majus, new bronze**	...	...	...	gar. var.	hA	dark.	10	6-10	6	
2062	— Scheuermannianum**	...	...	...	...	...	spot.	...	...	3	
2063	— — carneum**	...	...	...	...	...	var.	...	...	6	
2064	minus	...	...	...	Peru	...	o. & y.	1	...	3	
2065	— coccineum	...	...	...	gar. var.	...	p.	...	...	6	
2066	peregrinum**	...	...	...	Peru	hA	y.	10	...	6	
2067	Tuckermanna speciosa	19	54	98	...	hA	...	2	...	3	Good garden soil.
2068	Tweedia cærulea**	2	26	175	Buenos Ayres	hhP+	b.	3	7-10	6	Pretty Climber.
2069	Uniola latifolia	3	...	123	Brazil	gS	pk.	...	6-7	6	Ornamental Grass.
2070	Unōna lævigata [ceum	13	35	68	E. Indies	...	w.	5	...	6	Greenhouse treatment.
2071	Venidium calendula	19	56	98	Cape G. Hope	hA	s.	1	7-8	3	Fine bedding plant.
2072	Verbena Aubletia	14	59	187	N. America	...	pk.	...	...	6	
2073	bononiensis	...	...	...	Buenos Ayres	...	b.	...	7-9	6	
2074	bitridōra	...	...	...	Chili	gS	l. p.	3	5-7	1 0	
2075	Drummondi	...	...	...	Texas	hP	li.	1½	7-8	3	
2076	pulchella	...	...	...	Buenos Ayres	...	...	...	...	3	
2077	— violacea	...	...	...	...	hhP	v.	1	6-9	3	
2078	scarlet	...	...	...	hybrid	...	s.	...	6-10	6	
2079	teucrioides	...	...	...	...	...	w.	...	6-9	6	
2080	venōsa	...	...	...	Buenos Ayres	...	ro.	2	5-9	3	
2081	veronicaefolia	...	...	...	Mexico	hA	b.	1	7-8	3	
2082	finest mixed [sis	...	...	...	hybrids	hhP	div.	1	6-10	1 0	
2083	Vernonia noveboracensis	19	53	98	N. America	hP	p.	6	9-11	1 0	Fine ornamental-flowering Shrub.
2084	Veronica amethystina	2	59	175	S. Europe	...	b.	4	7-9	6	
2085	caucásica	...	...	...	...	...	...	...	...	6	... ..
2086	Delfossi	...	...	...	...	...	...	...	...	6	... ..
2087	Hendersōni	...	...	...	...	...	...	...	...	6	... ..
2088	hybrida	...	...	...	England	...	b.	1	...	6	
2089	— liabandi	...	...	...	...	...	...	...	...	6	
2090	imperialis	...	...	...	...	...	...	...	...	6	
2091	incisa	...	...	...	Siberia	...	b.	2	6-8	3	
2092	latifolia	...	...	...	Austria	...	w. & b.	1	5-6	6	
2093	Lindleyana	...	...	...	N. Zealand	hhP	w.	3	...	6	
2094	melensis	...	...	...	...	hP	...	...	...	6	
2095	speciosa	...	...	...	...	...	...	...	...	6	
2096	spicata	...	...	...	England	...	b.	1	7-9	3	
2097	— alba	...	...	...	...	...	w.	...	...	3	
2098	syriaca	...	...	...	Syria	hA	b. & w.	1	...	6	
2099	— alba	...	...	...	...	...	w.	...	...	6	
2100	variegata	...	...	...	...	hP	...	...	...	6	
2101	Verschaffelti	...	...	...	...	...	...	...	...	6	
2102	violacea purpurea	...	...	...	...	...	v.	2	...	6	
2103	Vesicaria polyantha	15	60	103	Europe	...	y.	1	4-6	6	
2104	Viburnum Tinus	5	28	90	S. Europe	hS	w.	4	3-12	3	
2105	Vicia sylvatica	17	45	132	Britain	hP	w. & b.	6	7-8	3	
2106	Victoria regia	13	25	144	Amazon	sA	ro. & w.	aq.	6-9	2 6	The grandest known Aquatic.
2107	Viminaria Priessi	10	...	132	N. Holland	gS	y.	3	...	6	
2108	denudata	...	...	...	...	...	...	...	...	6	Curious Greenhouse plants: light soil.
2109	Vinca rosea	5	...	69	E. Indies	...	r. & w.	1	4-10	4	
2110	— alba	...	...	...	...	...	w.	...	...	4	
2111	Viola odorata	...	...	188	Britain	hP	p.	3	3-5	6	
2112	Viscaria cœli-rosa	10	30	91	Levant	hA	ro.	1	7-9	3	
2113	— alba	...	...	...	gar. var.	...	w.	...	...	3	
2114	— nana	...	...	...	...	...	ro.	...	...	3	
2115	oculata	...	...	...	Algiers	...	pk. & r.	2	7-10	3	
2116	— Dunnetti	...	...	...	gar. var.	...	w.	...	...	6	
2117	— nana	...	...	...	...	...	pk.	...	...	6	
2118	— new scarlet	...	...	...	...	...	s.	...	...	6	
2119	Vitex Agnus-castus	14	59	187	Sicily	hhS	w. & b.	6	9-10	3	Sow on heat, and transplant.
2120	Vittadinia trilobata	19	54	98	Australia	hA	li.	1	6-10	3	
2121	cuneata	...	...	...	...	...	...	...	...	3	Australian Daisy: sow on open borders.
2122	Westringia grandiflora	14	68	130	N. S. Wales	hhS	...	...	...	6	Light rich soil.

Scientific Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	GENERAL OBSERVATIONS.
No.							feet	s. d.		
2123 <i>Westringia longifolia</i> [a]	14	68	130	N. S. Wales	hhS	ro. & w.	2	8-9	6	Sow in light rich soil.
2124 <i>Whitlavia grandiflora</i>	5	25	91	California	hA	v.	1	6-10	3	One of the best of the Hardy Annuals.
2125 <i>Yucca gloriosa</i>	6	...	123	S. America	hhS	w. & g.	8	8-9	1 0	} Magnificent Aloe-like plants. Sow on heat in light rich soil and transplant.
2126 <i>aloifolia</i>	...	...	...	...	...	...	...	...	1 0	
2127 <i>pinnatifida</i>	...	...	...	...	...	...	...	...	1 0	
2128 <i>Zamia caffra</i>	21	48	105	Cape G. Hope	gP	ap.	3	...	1 0	Very curious: usual greenhouse treatment.
2129 <i>Zauschneria californica</i>	8	25	146	California	hhP†	s.	1	6-10	1 0	Fine scarlet Salvia-like plant.
2130 <i>Zemona glauca</i>	...	...	...	...	...	...	...	...	6	Usual greenhouse treatment.
2131 <i>Zinnia elegans, mixed</i>	19	54	98	Mexico	hhA	div.	2	6-9	6	} The Zinnia is one of the most brilliant of Annuals, and has long been a general favourite. No. 2142, "mixed double varieties" are immense improvements on the single, and are perhaps the finest introductions for many years. The seed we offer has been saved from our original Indian importation, and is gathered from the best double flowers only. Sow in mild hot-bed in April, pot off into an airy situation, and transplant to inch borders in May.
2132 — <i>alba</i>	...	...	...	gar. var.	...	w.	...	...	4	
2133 — <i>aurantiaca</i>	...	...	...	...	...	o.	...	...	4	
2134 — <i>coccinea</i>	...	...	...	...	...	s.	...	...	4	
2135 — — <i>major</i>	...	...	...	...	...	...	...	...	4	
2136 — <i>flava</i>	...	...	...	...	...	y.	...	...	4	
2137 — <i>kermesina</i>	...	...	...	...	...	e.	...	...	4	
2138 — <i>miniata</i>	...	...	...	...	...	car.	...	...	4	
2139 — <i>purpurea</i>	...	...	...	...	...	p.	...	...	4	
2140 — <i>rosea</i>	...	...	...	...	...	ro.	...	...	4	
2141 — <i>sulphurea</i>	...	...	...	...	...	sul.	...	...	4	
2142 <b>choicest double</b>	...	...	...	India	...	div.	3	...	1 0	

## FLOWERS HAVING POPULAR NAMES.

Under this heading we have specified the various flowers under the names by which they are generally known, to which we have also affixed the Scientific Names, to show the genus to which they belong; and as most of the kinds are of such a nature as will with ordinary care succeed in almost any soil or situation, the remarks on culture, soil, &c., will necessarily be brief.

Popular Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	Scientific Name.	Culture, Soil, &c.
No.							feet	s. d.			
2143 <b>Aster, Bouquet</b>	19	54	98	gar. var.	hhA	div.	2	7-10	1 0	<i>Aster chinensis ramosus chinensis, pl. var.</i>	} ... ..
2144 Chinese, mixed	...	...	...	China	...	...	...	...	3	<i>— coronis oculatus</i>	
2145 <b>Cockade, mixed</b>	...	...	...	gar. var.	...	...	...	...	1 0	<i>— nanus</i>	
2146 dwarf	...	...	...	...	...	...	1½	...	6	<i>— imperialis giganteus</i>	} ... ..
2147 <b>Emperor, giant</b>	...	...	...	...	...	p.	2	...	1 0	<i>— fistulosus, pl. var.</i>	
2148 German, quilled, m.	...	...	...	...	...	div.	...	...	6	<i>— globularis, pl. var.</i>	
2149 <b>Globe, mixed</b>	...	...	...	...	...	...	...	...	6	<i>— superbus</i>	} For culture, soils, &c., see page 3.
2150 <b>La Superbe</b>	...	...	...	...	...	ro.	...	...	1 0	<i>— paeoniiflorus, pl. v.</i>	
2151 <b>Peony-flowered</b>	...	...	...	...	...	div.	...	...	1 0	<i>— incomparabilis</i>	
2152 <b>Perfection, mix.</b>	...	...	...	...	...	...	...	...	1 0	<i>— spicatus miniatus</i>	} ... ..
2153 <b>Porcupine, carn.</b>	...	...	...	...	...	car.	...	...	1 0	<i>— — roseus</i>	
2154 — <i>rose</i>	...	...	...	...	...	ro.	...	...	1 0	<i>— pyramidalis, pl. var.</i>	
2155 pyramidal	...	...	...	...	...	div.	...	...	6	<i>— ranunculiflorus</i>	} ... ..
2156 Ranunculus-flow'd.	...	...	...	...	...	...	...	...	6	<i>— nanissimus, pl. var.</i>	
2157 very dwarf	...	...	...	...	...	...	1	...	6	<i>Primula Auricula, pl. var.</i>	
2158 Auricula, fine Alpine	5	25	160	Switzerland	hP	p.	½	5-7	6	<i>Auricula eximia</i>	} Sow on gentle heat.
2159 finest prize	...	...	...	gar. var.	hP	div.	...	...	2 6	<i>Balsamina hortensis fl. pl.</i>	
2160 Balsam, finest double	...	...	76	E. Indies	tA	...	2	6-9	6	<i>hortensis Camelliaeflora</i>	
2161 <b>Camellia, mixed</b>	...	...	...	gar. var.	...	...	...	...	6	<i>— nana, pl. var.</i>	} For culture, soil, &c., see page 5.
2162 dwarf, mixed	...	...	...	...	...	...	1	...	6	<i>— roseiflora, pl. var.</i>	
2163 Rose-flowered, m.	...	...	...	...	...	...	2	...	6	<i>— — Isabel</i>	
2164 — <i>Isabel</i>	...	...	...	...	...	ro.	...	...	6	<i>— — aurantiacu</i>	} ... ..
2165 — <i>orange</i>	...	...	...	...	...	or.	...	...	6	<i>Kochia scoparia</i>	
2166 Belvedere (Cypress)	6	26	94	Britain	hA	ap.	1½	...	3	<i>Tropaeolum peregrinum</i>	
2167 Canary Creeper	8	25	182	Peru	hhA	y.	10	6-10	6	<i>Iberis odorata</i>	} Among the showiest of Hardy Annuals: sow in good garden soil.
2168 Candytuft, fragrant	15	66	103	Crete	hA	w.	1	5-8	3	<i>umbellata</i>	
2169 purple	...	...	...	S. Europe	...	p.	...	...	3	<i>— kermesina</i>	
2170 new crimson	...	...	...	gar. var.	...	c.	...	...	3	<i>— coronaria</i>	} ... ..
2171 Rocket	...	...	...	S. Europe	...	w.	...	...	3	<i>— rosea</i>	
2172 rose	...	...	...	gar. var.	...	ro.	...	...	3	<i>amara</i>	
2173 white	...	...	...	England	...	w.	...	...	3	<i>Campánula Medium</i>	} Same treatment as Campanula!
2174 Canterbury Bell, pur.	5	25	87	Germany	hP†	p.	2½	...	3	<i>Medium alba</i>	
2175 white	...	...	...	gar. var.	...	w.	...	...	3	<i>— flore pleno caerulea</i>	
2176 double blue	...	...	...	...	...	b.	...	...	3	<i>— — lilacina</i>	} Sow on heat.
2177 — <i>lilac</i>	...	...	...	...	...	li.	...	...	3	<i>— — alba</i>	
2178 — <i>white</i>	...	...	...	...	...	w.	...	...	3	<i>Capsicum annuum, pl. v.</i>	
2179 Capsicum, mixed	...	...	178	India	hhA	f. var.	2	...	6	<i>Dianthus Caryophyllus</i>	} For culture see Dianthus.
2180 Carnation, double	10	26	91	England	hP	div.	...	...	1 0	<i>Caryophyllus eximius</i>	
2181 <b>choicest double</b>	...	...	...	gar. var.	...	...	...	...	2 6	<i>— semperflorens</i>	
2182 — <b>perpetual</b>	...	...	...	...	...	...	3-10	2 6	...		



Popular Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	Scientific Name.	Culture, Soil, &c.
No.							feet		s. d.		
2183 Catchfly, red	10	28	91	England	hA	r.	1	6-9	3	<i>Silene Arméria rubra</i>	Common garden soil.
2184 new pink	...	...	...	...	...	pk.	...	...	3	<i>rosea</i>	
2185 white	...	...	...	...	...	w.	...	...	3	<i>alba</i>	
2186 Chrysanthemum trico-	19	54	98	Barbary	...	y. br. w.	...	...	3	<i>Chrysanthemum carinā-</i>	Very showy Annuals ; grow in any good gar- den soil.
2187 tricolor, Burridge's	...	...	...	gar. var.	...	c. & w.	...	...	3	<i>carinatum Burridgi</i>	
2188 — improved	...	...	...	...	...	...	...	...	6	— <i>melior</i>	
2189 — venustum	...	...	...	...	...	w. & c.	...	...	3	— <i>venustum</i>	Sow in good garden soil.
2190 — yellow	...	...	...	Barbary	...	y.	...	...	3	— <i>flavum</i>	
2191 — double white	...	...	...	Sicily	...	w.	2½	...	3	— <i>album plenum</i>	
2192 — yellow	...	...	...	...	...	y.	...	...	3	— <i>flavum plenum</i>	Sow in good garden soil.
2193 — quilled white	...	...	...	gar. var.	...	w.	...	...	3	— <i>fistulosum album</i>	
2194 Clary, purple	10	25	130	S. Europe	...	p.	1	...	3	<i>Salvia Horminum pur.</i>	
2195 red	...	...	...	gar. var.	...	r.	...	...	3	<i>rubra</i>	Sow in hot-bed.
2196 white	...	...	...	...	...	w.	...	...	3	<i>alba</i>	
2197 Cockscomb, dwarf er.	5	...	64	Asia	tA	e.	...	...	4	<i>Celosia cristata nana</i>	
2198 Columbine, double	13	30	162	Britain	hP†	...	2	6-8	3	<i>Aquilegia fl. vulgaris pl.</i>	Garden soil.
2199 Convolvulus major, m.	5	25	100	America	hhA	...	10	7-10	6	<i>Ipomœa purpurea, pl. var.</i>	
2200 major, splendid, m.	...	...	...	gar. var.	...	...	...	...	10	<i>purpurea eximia</i>	
2201 — blue	...	...	...	...	...	b.	...	...	4	— <i>cœrulea</i>	For the culture of these beautiful flowers see half-hardy varieties of Ipomœa.
2202 — crimson	...	...	...	...	...	c.	...	...	4	— <i>kermesina</i>	
2203 — rose	...	...	...	...	...	ro.	...	...	4	— <i>rosea</i>	
2204 — striped	...	...	...	...	...	stri.	...	...	4	— <i>striata</i>	...
2205 — violet	...	...	...	...	...	v.	...	...	4	— <i>violacea</i>	
2206 — white	...	...	...	...	...	w.	...	...	4	— <i>alba</i>	
2207 minor	...	...	...	S. Europe	hA	b.	1	6-10	3	<i>Convolvulus tricolor</i>	Extremely showy ; grow well in any good gar- den soil.
2208 — dark purple	...	...	...	gar. var.	...	d. p.	...	...	4	<i>tricolor atropurpureus</i>	
2209 — large-flowered	...	...	...	...	...	b.	...	...	3	— <i>grandiflorus</i>	
2210 — striped	...	...	...	...	...	stri.	...	...	3	— <i>striatus</i>	...
2211 — white [strosus	...	...	...	...	...	w.	...	...	3	— <i>albus</i>	
2212 — tricolor mon-	...	...	...	...	...	b.	...	...	10	— <i>monstruosus</i>	
2213 — subcœruleus	...	...	...	...	...	lav.	...	...	6	— <i>subcœruleus</i>	...
2214 — double white	...	...	...	...	...	w.	...	...	6	— <i>albus plenus</i>	
2215 — elegans	...	...	...	...	...	d. v.	...	...	6	— <i>elegans</i>	
2216 Cowslip, fine mixed	...	...	160	Britain	hP†	div.	½	5-8	3	<i>Primula elatior, pl. var.</i>	Common soil.
2217 Cyanus, fine mixed	19	55	98	...	hA	...	1½	6-9	3	<i>Centaurea Cyanus, pl. var.</i>	
2218 dark purple	...	...	...	...	...	d. p.	...	...	3	<i>Cyanus atropurpurea</i>	
2219 new rose	...	...	...	...	...	ro.	...	...	3	— <i>rosea nova</i>	Showy Annuals ; grow in any garden soil.
2220 — sky-blue	...	...	...	...	...	li. b.	...	...	3	— <i>cœrulea nova</i>	
2221 — striped	...	...	...	...	...	stri.	...	...	3	— <i>striata nova</i>	
2222 Egg Plant, purple	5	25	178	Arabia	hhA	p. fr.	2	...	3	<i>Solanum ovigerum</i>	Sow in heat and plant out.
2223 white	...	...	...	...	...	w. fr.	...	...	3	<i>ovigerum album</i>	
2224 Everlasting Flowers	19	54	98	div.	hP†	div.	...	7-8	6	<i>Helichrysum, sp. et var.</i>	
2225 Flos Adonis	13	35	162	S. Europe	hA	c.	...	7-9	3	<i>Adonis vernalis</i>	See Helichrysum. Good garden soil.
2226 Forget-me-not	5	25	81	Britain	...	b. & y.	...	...	3	<i>Myosotis palustris</i>	
2227 Foxglove, finest mixed	14	59	175	Europe	...	div.	3	7-8	3	<i>Digitalis, pl. sp. et var.</i>	
2228 Fraxinella, red	10	25	168	S. Europe	hP	r.	...	6-8	3	<i>Dictamnus Fraxinella</i>	Common garden soil.
2229 white	...	...	...	...	...	w.	...	...	3	<i>Fraxinella alba</i>	
2230 French Honeysuckle,	17	45	132	Italy	hP†	s.	2	6-9	3	<i>Hedysarum coronarium</i>	
2231 white	...	...	...	...	...	w.	...	...	3	<i>coronarium album</i>	Common garden soil.
2232 Geranium, finest m.	16	42	119	hybrid	gS	div.	3	...	10	<i>Pelargonium hybridum</i>	
2233 mixed scarlets	...	...	...	Cape G. Hope	hhS	s.	...	...	6	<i>zonale, pl. var.</i>	See Pelargonium.
2234 Globe Amaranthus, p.	5	25	64	India	gA	p.	2½	7-9	3	<i>Gomphrena globosa purp.</i>	
2235 flesh-coloured	...	...	...	...	...	flsh.	...	...	3	— <i>globosa carnea</i>	Sow on hot-bed, prick off, and grow in pots in rich sandy loam.
2236 orange	...	...	...	Mexico	...	or.	...	...	3	— <i>aurantiaca</i>	
2237 variegated	...	...	...	India	...	var.	...	...	3	— <i>variegata</i>	
2238 white	...	...	...	...	...	w.	...	...	3	— <i>alba</i>	Common soil.
2239 Globe Thistle	19	57	98	Austria	hP	l. b.	5	6-9	3	<i>Echinops sphærocéphalus</i>	
2240 Gourd, Bottle, 2 var.	21	49	104	India	fA	w.	trai	7-9	6	<i>Cucurbita Lagénaria</i>	
2241 Hercule's Club	...	...	...	...	...	...	...	...	6	<i>Lagenaria clavata Herculis</i>	See Cucurbita.
2242 new miniature	...	...	...	Java	...	y.	...	...	6	— <i>vittata</i>	
2243 orange-shaped	...	...	...	Chili	...	...	...	...	6	— <i>aurantiaca</i>	
2244 pear-shaped	...	...	...	...	...	...	...	...	6	— <i>pyriformis</i>	See Jacobaea.
2245 Groundsel, American	19	54	98	Cape G. Hope	hA	div.	1	...	6	<i>Senecio elegans, pl. var.</i>	
2246 Hawkweed, red	...	53	...	Italy	...	r.	...	...	3	<i>Crœpis rubra</i>	
2247 white	...	...	...	...	...	w.	...	...	3	— <i>rubra alba</i>	Showy Annuals ; grow in any good garden soil.
2248 yellow	...	...	...	France	...	y.	...	...	3	<i>Tolpis barbata</i>	
2249 silvery	...	...	...	...	...	sil.	...	...	3	— <i>barbata argentea</i>	
2250 Heartsease, extra-fine	5	25	188	Britain	hP†	div.	½	6-10	10	<i>Viola tricolor hybrida</i>	Light rich soil.
2251 — new French	...	...	...	...	...	...	...	...	10	— <i>var. gallica nove</i>	
2252 Hollyhock, Chinese, c.	16	48	137	China	hA	c.	2	7-9	3	<i>Althœa chinensis, kerm.</i>	
2253 new prize, mixed	...	...	...	gar. var.	hP	div.	6	6-9	10	— <i>rosea nova eximia</i>	Good garden soil.
2254 Honesty, pur. & white	15	60	103	Germany	hB†	p. & w.	3	5-7	3	<i>Lunaria biennis, 2 sp.</i>	
2255 Ice Plant	12	27	113	Greece	...	w.	...	7-8	3	<i>Mesembry. crystallinum</i>	
2256 Jacobaea, mixed	19	54	98	Cape G. Hope	hA	div.	1	7-9	5	<i>Senecio elegans, pl. var.</i>	Good soil.

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No.							feet	s. d.			
2257 Jacobæa, dble crimson	19	54	98	gar. var.	hA	c.	1	7-9	3	<i>Senecio elegans kerm.</i>	Sow in slight hot-bed and transplant in May, or sow in open borders in April.
2258 — purple	...	...	...	...	...	p.	...	...	3	— <i>purpureum</i>	
2259 — red	...	...	...	Cape G. Hope	...	r.	...	...	3	— <i>rubrum</i>	
2260 — rose	...	...	...	gar. var.	...	ro.	...	...	3	— <i>roseum</i>	
2261 — violet	...	...	...	...	...	v.	...	...	3	— <i>violaceum</i>	
2262 — white	...	...	...	...	...	w.	...	...	3	— <i>album</i>	Common garden soil.
2263 Jacob's Ladder, blue	5	25	154	Britain	hP	b.	...	6-8	3	<i>Polemonium caruleum</i>	
2264 Larkspur, dwarf, m.	13	28	162	Switzerland	hA	div.	...	7-9	3	<i>Delphinium Ajacis humile</i>	Handsome hardy Annuals; grow in any good garden soil.
2265 dwarf German, m.	...	...	...	gar. var.	...	...	...	...	6	<i>Ajæcis Germanicum</i>	
2266 tall Stock-fld.	...	...	...	...	...	...	...	...	6	— <i>malhiolæflora</i>	
2267 dwarf do.	...	...	...	...	...	...	...	...	6	— <i>nana</i>	
2268 Hyacinth-fld., mix'd	...	...	...	Europe	...	...	...	...	6	— <i>hyacinthoides</i>	
2269 Pyramidal, mixed	...	...	...	gar. var.	...	...	1½	...	6	<i>clatius pyramidale</i>	L. tricolor elegans is the finest Larkspur grown.
2270 German, branch., m.	...	...	...	England	...	...	2	...	6	<i>Consolida, pl. var.</i>	
2271 tricolor elegans	...	...	...	hybrid	...	3-col.	...	...	6	<i>tricolor elegans</i>	Common garden soil.
2272 Lavatera, red	16	48	137	S. Europe	...	r.	3	7-8	3	<i>Lavatera trimestris</i>	
2273 white	...	...	...	...	...	w.	...	...	3	<i>trimestris alba</i>	Common garden soil.
2274 Love Grass	3	26	123	...	...	ap.	...	...	3	<i>Eragrostis elegans</i>	See Agrostis.
2275 Love-lies-bleeding, red	21	40	64	E. Indies	...	r.	2	...	3	<i>Amaranthus caudatus</i>	Common garden soil.
2276 white	...	...	...	...	...	w.	...	...	3	<i>caudatus albus</i>	
2277 Lupines, Dutch blue	17	45	132	Buenos Ayres	...	b.	...	7-9	3	<i>Lupinus canaliculatus</i>	Grow in any good garden soil.
2278 large blue	...	...	...	S. Europe	...	...	...	...	3	<i>hirsutus</i>	
2279 — rose	...	...	...	...	...	ro.	...	...	3	<i>pilosus</i>	
2280 — white	...	...	...	...	...	w.	...	...	3	— <i>albus</i>	
2281 small blue	...	...	...	...	...	b.	1½	...	3	<i>angustifolius</i>	
2282 white	...	...	...	Levant	...	w.	...	...	3	<i>albus</i>	...
2283 yellow	...	...	...	Sicily	...	y.	...	...	3	<i>luteus</i>	
2284 Marigold, French, m.	19	54	98	Mexico	hhA	div.	...	7-10	6	<i>Tagetes patula, pl. var.</i>	The greatest care has been bestowed upon our Marigolds, and the seed is saved only from the finest double flowers. Sow on heat and transplant.
2285 French, dwarf	...	...	...	gar. var.	...	d. b.	1	...	6	<i>patula nana</i>	
2286 — new orange	...	...	...	...	...	o.	1½	...	6	— <i>aurantinea nova</i>	
2287 — superb striped	...	...	...	...	...	stri.	...	...	6	— <i>striata superba</i>	
2288 — miniature	...	...	...	...	...	br.	½	...	6	— <i>nanissima</i>	
2289 — — new striped	...	...	...	...	...	stri.	...	...	6	— <i>striata nova</i>	
2290 — — new yellow	...	...	...	...	...	y.	...	...	6	— <i>flava nova</i>	
2291 African, mixed	...	...	...	Mexico	...	div.	2	...	6	<i>erecta, pl. var.</i>	
2292 — lemon	...	...	...	...	...	lem.	...	...	6	— <i>citrina</i>	
2293 — orange	...	...	...	...	...	o.	...	...	6	— <i>aurantiaca</i>	
2294 Cape	...	...	...	Cape G. Hope	hA	w. & p.	...	...	6	<i>Caléndula pluvialis</i>	Common garden soil.
2295 hybrid	...	...	...	...	...	w.	...	7-8	6	<i>hybrida</i>	
2296 superb garden	...	...	...	S. Europe	...	o.	...	...	6	<i>officinalis superba</i>	
2297 Marvel of Peru, m.	5	25	143	India	hhPh	div.	...	6-9	3	<i>Mirabilis Jalapa, pl. var.</i>	
2298 gold-striped	...	...	...	...	...	stri.	...	...	3	<i>Jalapa aurea striata</i>	
2299 red	...	...	...	...	...	r.	...	...	3	— <i>rubra</i>	These densely-foliaged and profuse-blooming Perennials flower the first year: sow in hot-bed or in open borders in May.
2300 — striped	...	...	...	...	...	stri.	...	...	3	— <i>rubra striata</i>	
2301 scarlet	...	...	...	...	...	s.	...	...	3	— <i>coccinea</i>	
2302 silver-striped	...	...	...	...	...	stri.	...	...	3	— <i>argentea striata</i>	
2303 white	...	...	...	...	...	w.	...	...	3	— <i>alba</i>	
2304 yellow	...	...	...	...	...	y.	...	...	3	— <i>flava</i>	Common garden soil.
2305 sweet-scented	...	...	...	Mexico	...	w.	...	...	3	<i>longiflora</i>	
2306 — purple	...	...	...	...	...	p.	...	...	3	— <i>purpurea</i>	
2307 Mignonette, oz. 6d.	11	28	163	Egypt	hA	buff	1	7-9	3	<i>Reseda odorata</i>	
2308 new, large, oz. 1s.	...	...	...	gar. var.	...	...	1½	...	3	<i>odorata grandiflora</i>	
2309 Musk-Plant	14	59	175	Columbia	hhPt	y.	¾	...	3	<i>Mimulus moschatius</i>	Good soil.
2310 Nasturtions, tall	8	25	182	Peru	hA	o.	6	...	3	<i>Tropæolum majus</i>	
2311 tall earmine	...	...	...	gar. var.	...	ear.	...	...	3	<i>majus miniatum</i>	Admirable for trellises and garden walls.
2312 — crimson	...	...	...	...	...	c.	...	...	3	— <i>kermesinum</i>	
2313 — orange, new	...	...	...	...	...	o.	...	...	3	— <i>aurantiacum</i>	
2314 dwarf	...	...	...	Peru	...	s.	1	...	3	— <i>natum</i>	
2315 — scarlet	...	...	...	gar. var.	...	...	...	...	3	— <i>coccineum</i>	
2316 Tom Thumb	...	...	...	...	...	...	¼	...	6	— <i>Carteri</i>	The Tom Thumb varieties of Nasturtions are very beautiful, and make very showy bedding plants.
2317 — Beauty	...	...	...	...	...	spot.	...	...	6	— <i>Beauty</i>	
2318 — crimson	...	...	...	...	...	c.	...	...	6	— <i>kermesinum</i>	
2319 — spotted	...	...	...	...	...	spot.	...	...	6	— <i>punctatum</i>	
2320 — yellow	...	...	...	...	...	y.	...	...	6	— <i>flavum</i>	
2321 Palma Christi	21	49	112	E. Indies	hhA	buff	6	7-8	3	<i>Ricinus communis major</i>	Light rich soil.
2322 Pea, Lord Anson's	17	45	132	Cape Horn	hA	b.	...	...	3	<i>Lathyrus myellanicus</i>	
2323 Lord Anson's white	...	...	...	...	...	w.	...	...	6	<i>myellanicus ulbus</i>	Grow freely in good garden soil.
2324 Tangier	...	...	...	Barbary	...	s.	4	...	3	<i>tingitanus</i>	
2325 — striped	...	...	...	...	...	stri.	...	...	3	— <i>striatus</i>	These pretty flowers may be grown either in pots or borders, and admit of being forced well.
2326 Pea, Sweet, lb. 3s.	...	...	...	divers	...	div.	6	5-10	3	<i>Lathyrus odoratus, pl. v.</i>	
2327 black	...	...	...	Sicily	...	blk.	...	...	3	<i>odoratus niger</i>	
2328 blue-edged	...	...	...	hybrid	...	b. & pk.	...	...	6	— <i>caerul. marginatus</i>	
2329 Painted Lady	...	...	...	Ceylon	...	ro. & w.	...	...	3	— <i>pictus</i>	
2330 purple	...	...	...	Sicily	...	p.	...	...	3	— <i>purpureus</i>	

Popular Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	Scientific Name.	Culture, Soil, &c.	
No.							feet		s. d.			
2331	Pea, purple-striped	17	45	132	Sicily	hA	stri.	6	5-10	3	<i>Láthyrus purp. striátus</i>	These pretty flowers may be grown either in pots or borders, and admit of being forced well.
2332	scarlet	...	...	...	Ceylon	...	s.	...	...	3	— <i>coccineus</i>	
2333	— striped	...	...	...	...	...	stri.	...	...	3	— <i>striátus</i>	
2334	white	...	...	...	...	...	w.	...	...	3	— <i>albas</i>	Common garden soil.
2335	Persicaria, red	8	28	156	E. Indies	...	r.	4	...	3	<i>Polygonum orientále</i>	
2336	white	...	...	...	...	...	w.	...	...	3	— <i>orientále album</i>	
2337	Picotee, double	10	26	91	England	hP	div.	2	...	1 0	<i>Dianthus Caryophýllus</i>	For culture, &c., see Dianthus.
2338	finest double	...	...	...	gar. var.	...	...	...	...	2 6	<i>Caryophyllus punct.</i>	
2339	Pink, double Garden	...	...	...	Europe	...	...	1	...	1 0	<i>moschátus fl. pl.</i>	
2340	Polyanthus, extra fine	5	25	160	Britain	...	...	3	5-7	1 0	<i>Primula elátior polyantha</i>	Rich garden soil.
2341	new large yellow	...	...	...	...	...	y.	...	...	1 0	— <i>fláva nova maxima</i>	
2342	Poppy, double mixed	13	...	149	England	hA	div.	2	7-8	3	<i>Papáver somniferum fl.pl.</i>	
2343	double scarlet	...	...	...	...	...	s.	...	...	3	<i>somniferum coccineum</i>	Well-known showy Annuals; grow freely in any good garden soil.
2344	— striped	...	...	...	...	...	stri.	...	...	3	— <i>striátam</i>	
2345	— white	...	...	...	...	...	w.	...	...	3	— <i>album</i>	
2346	— new Peony	...	...	...	...	...	div.	...	...	3	— <i>pæoniæflorum</i>	...
2347	— new Ranunculus	...	...	...	...	...	...	...	...	3	— <i>ranunculiflorum</i>	
2348	— dwarf French	...	...	...	...	...	...	1	...	3	<i>Rhæas</i>	
2349	— scarlet	...	...	...	...	...	s.	...	...	3	— <i>coccineum</i>	...
2350	Primrose, Chin., fring.	5	...	160	China	gP†	div.	...	10-7	1 0	<i>Primulasinensisfimbriata</i>	See Primula.
2351	Prince's Feather, large	21	40	64	Nepaul	hA	p.	3	7-8	3	<i>Amaranthus speeðsius</i>	Common garden soil.
2352	common	...	...	...	Virginia	...	...	2	...	3	<i>hypochondriacus</i>	
2353	Quaking Grass, large	3	26	123	Europe	...	ap.	1	...	3	<i>Briza maxima</i>	
2354	slender	...	...	...	England	...	...	...	...	3	<i>gráeilis</i>	Good garden soil.
2355	Rocket, purple	15	61	103	Europe	hP†	p.	1 1/2	6-9	3	<i>Hesperis matronális</i>	
2356	sweet	...	...	...	...	...	w.	...	...	3	<i>tristis</i>	
2357	Rose Campion, red	10	30	91	Italy	...	r.	2	6-8	3	<i>Lychnis coronária</i>	Common garden soil.
2358	white and rose	...	...	...	gar. var.	...	w. & ro.	...	...	3	— <i>coronária albo-rosea</i>	
2359	Scabious, dark purple	4	25	107	E. Indies	...	d. p.	...	6-9	3	<i>Scabiðsa atropurpurea</i>	
2360	new dwarf	...	...	...	...	hA	div.	1	...	3	<i>nána nova</i>	Handsome showy plants: sow on heat and transplant.
2361	new scarlet	...	...	...	...	hP†	s.	2	...	6	<i>coccinea nova</i>	
2362	finest German, m.	...	...	...	...	...	div.	...	...	6	<i>eximia, pl. var.</i>	
2363	Sensitive Plant	23	51	132	Brazil	gS	pk.	...	...	6	<i>Mimðsa pudica</i>	Sow on heat.
2364	Snowdrop	6	25	...	Britain	hPb	w.	1/2	1-3	6	<i>Galanthus nivális</i>	Light soil.
2365	Stock, German, ex. fine	15	61	103	S. Europe	hA	div.	1	6-9	1 0	<i>Mathiola annua densiflora</i>	...
2366	German, crimson	...	...	...	gar. var.	...	c.	...	...	4	<i>unna kermesina</i>	
2367	— dwf. Bouquet	...	...	...	...	...	...	...	...	6	— <i>nána ramosa</i>	
2368	— dark blue	...	...	...	...	...	d. b.	...	...	4	— <i>atrocarulea</i>	...
2369	— rose	...	...	...	...	...	ro.	...	...	4	— <i>rosea</i>	
2370	— scarlet	...	...	...	...	...	s.	...	...	4	— <i>coccinea</i>	
2371	— white	...	...	...	...	...	w.	...	...	4	— <i>alba</i>	...
2372	large-flowered	...	...	...	...	...	div.	...	...	6	— <i>grandiflora, pl. v.</i>	
2373	Wallflower-lvd., m.	...	...	...	England	...	...	...	...	6	— <i>cheirifolia (græca)</i>	
2374	intermediate	...	...	...	gar. var.	...	...	1 1/2	8-10	6	— <i>intermedia, pl. var.</i>	...
2375	— scarlet	...	...	...	...	...	s.	...	...	6	— <i>coccinea</i>	
2376	— purple	...	...	...	...	...	p.	...	...	6	— <i>purpurea</i>	
2377	— Covent Gard.	...	...	...	...	...	s.	...	...	1 0	— <i>furmosa</i>	For general observations, on the culture of the Stock, see page 4.
2378	— white	...	...	...	...	...	w.	...	...	1 0	— <i>alba</i>	
2379	new miniature, m.	...	...	...	...	...	div.	1/2	6-9	6	— <i>pygmæa nova, pl. v.</i>	
2380	— scarlet	...	...	...	...	...	s.	...	...	6	— <i>coccinea</i>	...
2381	Ten-week giant sc.	...	...	...	...	hA	...	2	...	6	— <i>ramosa gigantea</i>	
2382	— giant purple	...	...	...	...	...	p.	...	...	6	— <i>gigan. purpurea</i>	
2383	— common mixed	...	...	...	S. Europe	...	div.	1 1/2	...	3	— <i>pl. var.</i>	...
2384	— purple	...	...	...	gar. var.	...	p.	...	...	3	— <i>purpurea</i>	
2385	— scarlet	...	...	...	...	...	s.	...	...	3	— <i>coccinea</i>	
2386	— white	...	...	...	...	...	w.	...	...	3	— <i>alba</i>	...
2387	Brompton, mixed	...	...	...	England	hB	div.	3	5-7	6	<i>simplicicaulis, pl. var.</i>	
2388	— purple	...	...	...	...	...	p.	...	...	3	— <i>purpurea</i>	
2389	— scarlet	...	...	...	...	...	s.	...	...	3	— <i>coccinea</i>	...
2390	— white	...	...	...	...	...	w.	...	...	6	— <i>alba</i>	
2391	hybrid perpetual, m.	...	...	...	hybrid	...	div.	1 1/2	...	4	<i>semperflorens hybrida</i>	
2392	Imperial, mixed	...	...	...	...	hP	...	...	...	6	<i>imperialis, pl. var.</i>	...
2393	— crimson	...	...	...	gar. var.	...	c.	...	...	6	— <i>kermesina</i>	
2394	Sunflower, dwarf	19	55	98	...	hA	y.	3	...	3	<i>Helianthus annuus</i>	
2395	double tall	...	...	...	S. America	...	...	6	7-9	3	<i>annuus, fl. pl.</i>	Showy Annuals. The seeds good for Bees.
2396	Californian	...	...	...	California	...	...	...	...	3	— <i>gigánticus</i>	
2397	Leviathan	...	...	...	gar. var.	...	...	10	...	6	— <i>monstrósus</i>	
2398	new orange	...	...	...	...	...	o.	6	...	6	— <i>aurantiacus novus</i>	...
2399	Texan	...	...	...	Texas	...	...	...	...	6	— <i>Texanus</i>	
2400	Sweet Alyssum	15	60	103	England	...	w.	1/2	7-10	3	<i>Alyssum maritimum</i>	
2401	Sweet Briar	12	35	166	Britain	hS	pk.	4	5-7	3	<i>Rosa rubiginosa</i>	
2402	Sweet Sultan, purple	19	55	98	Persia	hA	p.	2	7-8	3	<i>Centaurea moschata</i>	
2403	white	...	...	...	...	...	w.	...	...	3	— <i>moschata alba</i>	Very showy Annuals, sow in good garden soil.
2404	yellow	...	...	...	Levant	...	y.	...	...	3	— <i>suavolens</i>	



Popular Name.	L. Cl.	L. O.	N. O.	Native Country.	H. & Dur.	Col. of Fl.	Hght.	M. of Flow.	Price.	Scientific Name.	Culture, Soil, &c.
No.							feet		s. d.		
2405 Venus's Look.-glass, b.	5	25	87	S. Europe	hA	b.	$\frac{1}{2}$	6-8	3	<i>Campánula Spéculum</i>	Profuse-blooming Annuals; grow in any garden soil.
2406 bluish	...	...	...	...	...	ro.	...	...	3	<i>Spéculum carnea</i>	
2407 white	...	...	...	...	...	w.	...	...	3	— <i>alba</i>	
2408 Venus's Navel-wort	...	...	81	Portugal	...	...	...	...	3	<i>Cynoglossum linifolium</i>	Garden soil.
2409 Virginian Stock, red	15	61	102	S. Europe	...	r.	...	...	3	<i>Malcolmia maritima</i>	Common garden soil.
2410 new rose	...	...	...	gar. var.	...	ro.	...	...	3	<i>maritima rosea</i>	
2411 — dwarf white	...	...	...	...	...	w.	$\frac{1}{2}$	...	4	— <i>alba nana</i>	
2412 white	...	...	...	S. Europe	...	...	...	...	3	— <i>alba</i>	Same culture as the Brompton Stock. See page 4.
2413 Wallflower, blood	...	...	...	...	hP	r.	$1\frac{1}{2}$	3-6	3	<i>Cheiranthus Cheiri</i>	
2414 dark red	...	...	...	gar. var.	...	d. r.	...	...	3	<i>Cheiri atrosanguineus</i>	
2415 purple	...	...	...	...	...	p.	...	...	3	— <i>purpureus</i>	Common soil.
2416 violet	...	...	...	...	...	v.	...	...	3	— <i>violaceus</i>	
2417 yellow	...	...	...	...	...	y.	...	...	3	— <i>flavus</i>	
2418 double German, mix.	...	...	...	...	...	div.	1	...	1 0	— <i>fiore pleno, pl. var.</i>	Everlasting Flowers: for culture see Helichrysum.
2419 Winter Cherry	5	25	178	S. Europe	hPt	w.	$2\frac{1}{2}$	6-8	3	<i>Physalis Alkekengi</i>	
2420 Xeranthemum, purple	19	54	98	...	hA	p.	2	7-9	3	<i>Xeranthemum annuum</i>	
2421 white	...	...	...	...	...	w.	...	...	3	<i>annuum album</i>	Common soil.
2422 — new	...	...	...	N. Holland	...	...	...	...	3	<i>Helichrysum bracteatum</i>	
2423 yellow	...	...	...	...	...	y.	...	...	3	<i>bracteatum [album]</i>	

## Dwarf Annuals, by weight, for Bedding, Edging, or covering large banks.

	s. d.		s. d.
Bartonia anrea, golden yellow..... per oz.	1 0	Lupinus nanus, blue .....	0 6
Calandrinia speciosa, rose .....	1 0	subcarneus, crimson and blue .....	2 0
Calliopsis bicolor nana, crimson and yellow .....	1 0	venustus, blue .....	1 0
Clarkia pulchella, rose .....	0 9	Nemophila insignis, blue .....	0 6
pulchella alba, white .....	0 9	maenlata, white, spotted with purple...	0 9
Collinsia bicolor, purple and white .....	0 9	Nemesia compacta, variegated .....	4 0
bicolor alba, white .....	1 0	Nolana atriplicifolia, blue and yellow .....	0 9
Delphinium cardiopetalon, blue .....	2 0	Phlox Drummondii, mixed colours .....	4 0
Dianthus atrorubens, dark crimson .....	2 0	Portulaca, mixed colours .....	4 0
Erysimum Perowskianum, orange .....	0 9	Saponaria calabrica, rose .....	2 0
Eschscholtzia crocea, orange .....	1 0	ocymoides.....	6 0
crocea alba, white .....	1 0	Schizopetalon Walkeri, white, fragrant ..	3 0
Eucharidium grandiflorum, pink .....	1 0	Silene pendula, crimson .....	0 6
Eutoca viscida, blue.....	1 0	Viscaria oculata, red and rose .....	1 0
Gilia tricolor, variegated.....	0 6	Whitlavia grandiflora, purple .....	2 0
Godetia insignis, pink .....	1 0	Candytuft, crimson .....	0 9
roseo-alba, white, spotted .....	1 0	Convolvulus minor, blue .....	0 6
Hibiscus africanus, cream, bronze centre ..	1 0	minor, dark purple .....	0 6
Leptosiphon aureus, golden yellow .....	2 6	Indian Pink, various colours .....	2 0
densiflorus, purple .....	0 9	Larkspur, dwarf German, mixed colours ...	1 6
densiflorus albus, white .....	1 0	Mignonette .....	0 6
luteus, sulphur-coloured .....	2 0	new, large .....	1 0
Linaria bipartita, delicately variegated ...	1 6	Pea, Sweet, mixed colours .....per lb. 2s. 6d.	0 3
Linmanthes grandiflora, yellow und white...	0 9	Sweet Alyssum, white .....	1 6
Lobelia gracilis, blue .....	2 6	Venus's Looking-glass, blue .....	1 0
gracilis alba, white .....	2 6	Virginian Stock, red .....	0 6

Carter's Scarlet Tom Thumb Nasturtion ..... per oz. 2s. 6d.

New Dwarf Spotted Nasturtion ..... " 1s. 6d.

True Crimson Linum grandiflorum ..... " 3s. 0d.

Perilla nankinensis, ornamental foliage, rich purple bronze ..... " 2s. 0d.

## SHOWY FLOWERS ADVISABLE TO BE GROWN IN LARGE QUANTITIES.

	s. d.		s. d.
Antirrhinum (Snapdragon), mixed colours .....per oz.	3 0	Lupines, yellow .....	0 6
Cosmidium Burdigianum, crimson bronze and yellow .	1 6	Nasturtions, TALL, mixed colours .....	0 6
Delphinium formosum, richest blue and white .....	1 0	Sweet Pea, black .....	0 6
Dianthus barbatus (Sweet William), mixed colours ...	1 0	do. Painted Lady, rose and white.....	0 6
Tropeolum peregrinum (Canary-bird Creeper) .....	3 0	do. scarlet .....	0 6
Zinnia elegans, mixed colours .....	4 0	do. white.....	0 6
Convolvulus major, mixed colours .....	1 0	Stock, 10-week, mixed colours .....	1 6
do. do. new striped .....	1 0	Wallflower, dark brown .....	1 0
Larkspur, mixed branching .....	1 0	do. yellow .....	1 0

## MIXED PACKETS OF FLOWER SEEDS.

For the convenience of those of our Customers who prefer a *mixed* variety of colours in the Flower Beds, &c., we subjoin the following, each packet of which comprises the best varieties of its kind.

## Hardy Annuals.

No.		s. d.	No.		s. d.
2424	Calliopsis.....per packet	0 3	2436	Lupinus, <i>common</i> .....	0 3
2425	Candytuft....."	0 3	2437	<i>newest sorts</i> ....."	0 6
2426	Clarkia elegans .....	0 3	2438	Nasturtions, <i>tall</i> ** .....	0 3
2427	<i>pulchella</i> .....	0 3	2439	<i>dwarf</i> .....	0 6
2428	Collinsia .....	0 3	2440	Nemophila .....	0 3
2429	Convolvulus minor .....	0 3	2441	Poppy, <i>superb new</i> .....	0 3
2430	Godetia .....	0 3	2442	<i>dwarf French</i> .....	0 3
2431	Jacobæa .....	0 6	2443	Scabious, <i>German</i> .....	0 6
2432	Larkspur, <i>dwarf stock-flowered</i> .....	0 6	2444	Schizanthus .....	0 3
2433	<i>dwarf German</i> ....."	0 6	2445	Sweet Peas** .....	0 3
2434	<i>branching</i> ....."	0 6	2446	Sweet Sultan .....	0 3
2435	<i>tall stock-flowered</i> .....	0 6	2447	Venus's Looking-Glass .....	0 3

## Half-hardy Annuals.

2448	Anagallis, <i>splendid</i> .....	per packet	0 6	2460	Lobelia, <i>dwarf</i> .....	per packet	0 6
2449	Aster, <i>German</i> .....	"	0 6	2461	Marigold, <i>French, superb double</i> ..	"	0 6
2450	<i>Globe</i> .....	"	0 6	2462	<i>African, superb double</i> .....	"	0 6
2451	<i>new dwarf</i> .....	"	0 6	2463	Petunia, <i>finest, large flowers</i> .....	"	0 6
2452	— <i>Peony-flowered</i> .....	"	1 0	2464	Phlox Drummondii, <i>extra fine</i> .....	"	0 6
2453	— <i>Perfection</i> .....	"	1 0	2465	Portulaca .....	"	0 6
2454	Brachycome .....	"	0 3	2466	Salpiglossis .....	"	0 6
2455	Convolvulus major** .....	"	0 6	2467	Stock, <i>dwarf German</i> .....	"	0 6
2456	<i>splendid, 20 var.**</i> .....	"	1 0	2468	<i>new large-flowered</i> .....	"	0 6
2457	Gaillardia .....	"	0 6	2469	— <i>very dwarf</i> ....."	"	0 6
2458	Helichrysum, <i>Everlasting Flowers</i> ...	"	0 6	2470	<i>intermediale</i> .....	"	0 6
2459	Ipomæa** .....	"	0 6	2471	Zinnia elegans....."	"	0 6

## Perennials, Biennials, and Shrubs.

2472	Anemone, <i>Poppy</i> .....	per packet	0 6	2488	Indian Pink.....	per packet	0 6
2473	Antirrhinum .....	"	0 6	2489	Lupinus, <i>newest</i> .....	"	0 6
2474	Aquilegia .....	"	0 6	2490	Mimulus, <i>dwarf</i> ....."	"	0 6
2475	Auricula, <i>prize</i> .....	"	2 6	2491	Oenothera, <i>dwarf</i> .....	"	0 6
2476	Campanula .....	"	0 6	2492	Pentstemon .....	"	0 6
2477	Canterbury Bell .....	"	0 3	2493	Phlox, <i>new French</i> .....	"	1 0
2478	Carnation, <i>extra fine</i> ....."	"	2 6	2494	Picotee, <i>extra fine</i> .....	"	2 6
2479	Chrysanthemum, <i>Chinese</i> .....	"	1 0	2495	Polyanthus, <i>show flowers</i> .....	"	1 0
2480	Dahlia, <i>superb double</i> ....."	"	1 0	2496	Potentilla .....	"	0 6
2481	Daisy, <i>Belgian</i> ....."	"	1 0	2497	Rose, <i>50 varieties</i> .....	"	2 6
2482	Delphinium, <i>Chinese</i> .....	"	0 6	2498	Stock, <i>Brompton</i> .....	"	0 6
2483	<i>tall</i> .....	"	0 6	2499	<i>Imperial</i> .....	"	0 6
2484	Digitalis, <i>Forget-me-not</i> .....	"	0 3	2500	Sweet William, <i>Hunt's newest</i> .....	"	1 0
2485	Gaillardia .....	"	0 6	2501	Verbena, <i>newest hybrids</i> .....	"	1 0
2486	Heartsease, <i>Pansy, extra</i> .....	"	1 0	2502	Wallflower, <i>single</i> .....	"	0 6
2487	Hollyhock, <i>prize</i> ....."	"	1 0	2503	<i>double</i> .....	"	1 0

## Greenhouse Seeds.

2504	Acacia .....	per packet	0 6	2514	Helichrysum .....	per packet	0 6
2505	Balsam, <i>finest double</i> .....	"	0 6	2515	Heliotropium, <i>newest</i> .....	"	0 6
2506	<i>Camelia</i> .....	"	0 6	2516	Ipomæa** .....	"	0 6
2507	Calceolaria, <i>100 var.</i> .....	"	1 0	2517	Kennedy** .....	"	0 6
2508	<i>new dwarf</i> .....	"	2 6	2518	Lophospermum** .....	"	0 6
2509	Cineraria, <i>superb var.</i> .....	"	1 0	2519	Manrandya** .....	"	0 6
2510	Euphorbia, <i>superb</i> .....	"	2 6	2520	Passiflora** .....	"	0 6
2511	Erica, <i>superb</i> .....	"	2 6	2521	Primula, <i>fringed</i> ....."	"	1 0
2512	Fuchsia, <i>extra fine</i> .....	"	1 0	2522	Thunbergia** .....	"	0 6
2513	Geranium, <i>finest</i> .....	"	1 0	2523	Tropæolum Lobbianum, <i>var.**</i> .....	"	1 0

## SELECT ASSORTMENTS OF ENGLISH AND CONTINENTAL FLOWER SEEDS.

For the accommodation of those of our Customers who wish for several varieties of a Flower, but who are at a loss to know the most desirable sorts to select, we annex the following; and in consideration of an *Assortment of several varieties of the same Flower* being taken, we have somewhat *reduced the prices* from those charged for *single packets*: each *Assortment* will contain the most *suitable and newest* varieties.

## Hardy Annuals.

No.				s.	d.	No.				s.	d.
2524	6 varieties	Calliopsis.....	for	1	3	2537	4 varieties	Lupinus .....	for	1	6
2525	4 do.	Candytuft .....	"	0	9	2538	4 do.	Nasturtion, tall .....	"	1	0
2526	4 do.	Clarkia elegans .....	"	0	9	2539	4 do.	do, dwarf, newest .....	"	1	6
2527	6 do.	Clarkia pulchella .....	"	2	0	2540	6 do.	Nemophila .....	"	1	3
2528	4 do.	Collinsia .....	"	1	0	2541	4 do.	Nolana .....	"	1	0
2529	4 do.	Convolvulus minor.....	"	0	9	2542	4 do.	Poppy .....	"	1	0
2530	4 do.	Gilia .....	"	0	9	2543	4 do.	Scabious .....	"	1	0
2531	4 do.	Godetia .....	"	0	9	2544	4 do.	Schizanthus .....	"	0	9
2532	4 do.	Hibiscus .....	"	0	9	2545	4 do.	Silene .....	"	0	9
2533	4 do.	Jacobæa .....	"	1	0	2546	4 do.	Sunflower .....	"	1	6
2534	6 do.	Larkspur, dwarf.....	"	1	6	2547	6 do.	Sweet Peas .....	"	1	6
2535	4 do.	Leptosiphon .....	"	1	0	2548	3 do.	Venus's Looking-glass .....	"	0	9
2536	4 do.	Lupinus, old sorts .....	"	0	9	2549	4 do.	Xeranthemum.....	"	1	0

## Half-Hardy Annuals.

2550	12 varieties	Aster, Globe .....	for	1	6	2560	4 varieties	Mesembryanthemum .....	for	1	3
2551	12 do.	new Peony-flowered .....	"	2	6	2561	6 do.	Petunia .....	"	2	0
2552	6 do.	Balsam, double .....	"	1	6	2562	6 do.	Phlox Drummondii .....	"	2	0
2553	6 do.	Convolvulus major .....	"	1	6	2563	6 do.	Portulaca .....	"	2	0
2554	4 do.	Gaillardia, newest .....	"	1	3	2564	6 do.	Salpiglossis .....	"	2	0
2555	4 do.	Helichrysum .....	"	1	0	2565	6 do.	Stock, German .....	"	1	6
2556	6 do.	Ipomæa** .....	"	2	0	2566	6 do.	do, new large-flowered .....	"	1	6
2557	6 do.	Lobelia, newest .....	"	2	0	2567	6 do.	do, miniature.....	"	2	0
2558	4 do.	Marigold, double French .....	"	1	6	2568	6 do.	do, intermediate .....	"	1	6
2559	4 do.	double African .....	"	1	6	2569	6 do.	Zinnia elegans.....	"	1	6

## Perennials, Biennials, and Shrubs.

2570	6 varieties	Antirrhinum .....	for	1	6	2583	4 varieties	Indian Pink.....	for	1	6
2571	4 do.	Aquilegia.....	"	1	6	2584	6 do.	Lobelia, newest .....	"	2	0
2572	4 do.	Campanula .....	"	1	0	2585	6 do.	Lupinus .....	"	1	6
2573	4 do.	Canterbury Bell .....	"	0	9	2586	6 do.	Marvel of Peru .....	"	1	6
2574	4 do.	Delphinium .....	"	1	6	2587	6 do.	Mimulus, various .....	"	2	0
2575	6 do.	Dianthus, newest dwarf.....	"	3	6	2588	4 do.	Oenothera, dwarf .....	"	1	6
2576	4 do.	Digitalis .....	"	1	0	2589	6 do.	Pentstemon .....	"	3	0
2577	4 do.	Eschscholtzia .....	"	1	0	2590	6 do.	Potentilla.....	"	1	6
2578	4 do.	Everlasting Peas** .....	"	1	0	2591	3 do.	Stock, Brompton .....	"	0	9
2579	4 do.	Forget-me-not .....	"	1	3	2592	12 do.	do, Imperial .....	"	2	6
2580	4 do.	Gaillardia.....	"	1	3	2593	4 do.	Sweet William.....	"	1	0
2581	4 do.	Gentiana .....	"	1	0	2594	6 do.	Verbena .....	"	2	0
2582	12 do.	Hollyhock, prize.....	"	5	0	2595	12 do.	Wallflower .....	"	2	6

## Greenhouse Seeds.

2596	4 varieties	Acacia .....	for	1	3	2605	4 varieties	Hibiscus .....	for	1	6
2597	4 do.	Anagallis, newest.....	"	2	6	2606	8 do.	Ipomæa** .....	"	7	6
2598	3 do.	Calceolaria .....	"	5	0	2607	6 do.	Kennedy** .....	"	2	6
2599	3 do.	Cockscomb .....	"	1	0	2608	4 do.	Lophospermum** .....	"	1	6
2600	6 do.	Erica .....	"	2	0	2609	4 do.	Maurandya** .....	"	2	0
2601	4 do.	Geranium.....	"	3	0	2610	4 do.	Passiflora** .....	"	2	0
2602	4 do.	Globe Amaranth .....	"	1	0	2611	4 do.	Primula, fringed .....	"	5	0
2603	4 do.	Helichrysum .....	"	1	3	2612	4 do.	Thunbergia .....	"	1	3
2604	6 do.	Heliotropium .....	"	2	0	2613	6 do.	Tropæolum .....	"	5	0



## CHOICE CARNATION AND PICOTEE SEEDS.

*From Plants selected from the finest Collections in Europe.*

Carnation Seed supplied from our Establishment has long borne a high character; and we have much gratification in assuring our Customers that the following Collections are finer than usual, and, we may confidently assert, the finest ever submitted to public notice; they are grown for us expressly by an eminent Horticulturist in the South of Germany; the plants from which the seed is saved have been personally selected from the finest collections in England, France, Italy, and Germany by one of our Firm, who has travelled nearly the whole of Europe: we can confidently recommend the subjoined, as forming the choicest and most complete Collections ever submitted to public notice; and we are also enabled, from the extent of our arrangements, to offer them at a *reduced price*.

No.				s. d.
2614	12 choicest varieties Bizarre Carnations, 10 seeds of each variety, as follows.....			3 0
	<i>bronze, blue stri.</i>	<i>white, rose and bronze.</i>	<i>violet, cin. and black.</i>	<i>red, rose and violet.</i>
	<i>lemon, red and brown.</i>	<i>rose, red and violet.</i>	<i>yel., rose and silver.</i>	<i>earmine, blue and black.</i>
	<i>white, lilac and carmine.</i>	<i>light violet and black.</i>	<i>yel., red and brown.</i>	<i>grey and flesh-coloured.</i>
2615	12 choicest varieties Fameuse Carnations, 10 seeds of each variety, as follows .....			3 6
	<i>white and lilac.</i>	<i>li. bronze, brown and white.</i>	<i>white and blood.</i>	<i>nankeen and rose.</i>
	<i>bronze and white.</i>	<i>white and crimson.</i>	<i>wh., violet and flesh.</i>	<i>wh., cin. and cerise.</i>
	<i>white, scar. and cerise.</i>	<i>purple and cerise.</i>	<i>bronze and white.</i>	<i>gold and rose, rare.</i>
2616	12 superb varieties Faxe and Bizarre Faxe Carnations, 10 seeds of each variety, as follows .....			3 6
	<i>blood-red and black.</i>	<i>chamois and violet.</i>	<i>cham., grey and purple.</i>	<i>yel., scar. and black.</i>
	<i>pk., sil. and blk. bronze.</i>	<i>pink and sienna.</i>	<i>li., yel. and sienna.</i>	<i>orange, blue and ear.</i>
	<i>yel., red and grey.</i>	<i>dark cham. and scar.</i>	<i>sienna, pur. and crim.</i>	<i>yel., blue and brown.</i>
2617	12 choicest varieties Flake Carnations, 10 seeds of each variety, as follows .....			3 0
	<i>white and violet.</i>	<i>scarlet and grey.</i>	<i>wh. and cinnamon.</i>	<i>blue and scarlet.</i>
	<i>dk. br. and blk. pur.</i>	<i>carmine and blue.</i>	<i>grey and crimson.</i>	<i>white and rose.</i>
	<i>crimson and dk. violet.</i>	<i>white and peach.</i>	<i>bronze and dk. brown.</i>	<i>violet and grey.</i>
2618	12 choicest varieties Yellow Bizarre and Self Carnations, 10 seeds of each variety, as follows .....			3 6
	<i>yel., flesh and rose.</i>	<i>buff self.</i>	<i>yel. rose purple.</i>	<i>yel., pur. and slate.</i>
	<i>salmon bizarre.</i>	<i>sal. rose purple.</i>	<i>lemon self.</i>	<i>yel. bizarre.</i>
	<i>yellow self.</i>	<i>orange bizarre.</i>	<i>yel. and lavender.</i>	<i>ro. lav. bizarre.</i>
2619	12 choicest varieties Yellow Flake Carnations, 10 seeds of each variety, as follows .....			3 6
	<i>buff and rose.</i>	<i>salmon and red.</i>	<i>yel. and scarlet.</i>	<i>yel. and purple.</i>
	<i>yel. and crimson.</i>	<i>orange and scarlet.</i>	<i>yel. and rose.</i>	<i>yel. and carmine.</i>
	<i>yel. and pink.</i>	<i>yel. and rose.</i>	<i>yel. and lavender.</i>	<i>sal. and maroon.</i>
2620	12 choicest varieties Yellow Fancy Carnations, 10 seeds of each variety, as follows .....			3 6
	<i>yel. and car. mottled.</i>	<i>yel. and slate.</i>	<i>yel., flesh and pur.</i>	<i>yel., lavender mottled.</i>
	<i>or., flesh and scarlet.</i>	<i>sal. and scarlet.</i>	<i>yel., rose and slate.</i>	<i>yel., scarlet mottled.</i>
	<i>yel. and pink, shaded.</i>	<i>yel., ro. shaded.</i>	<i>yel., scar. spotted.</i>	<i>sal., shaded cerise.</i>
2621	12 choicest varieties White-ground Picotees, 10 seeds of each variety, as follows .....			3 0
	<i>wh. and dk. violet.</i>	<i>white and scarlet.</i>	<i>white and rose.</i>	<i>white and violet.</i>
	<i>wh. and steel.</i>	<i>wh. and dk. carmine.</i>	<i>white and blue.</i>	<i>white and purple.</i>
	<i>wh. and peach.</i>	<i>wh. and cinnamon.</i>	<i>white and bronze.</i>	<i>white and chestnut.</i>
2622	12 superb varieties Yellow-ground Picotees, 10 seeds of each variety, as follows.....			3 6
	<i>yel. and li. violet.</i>	<i>yel. and cinnamon.</i>	<i>yel. and dk. rose.</i>	<i>yel. and grey.</i>
	<i>yel. and dk. violet.</i>	<i>yel. and bronze.</i>	<i>yel. and earmine.</i>	<i>yel. and br. lilac.</i>
	<i>yel. and vio. pur.</i>	<i>yel. and scarlet.</i>	<i>yel. and chestnut.</i>	<i>yel. and dk. brown.</i>
2623	12 choicest varieties White-margined Picotees, 10 seeds of each variety, as follows .....			3 0
	<i>wh., grey and rose.</i>	<i>wh., rose and black.</i>	<i>wh., ro. and violet.</i>	<i>wh., grey and rose.</i>
	<i>wh., flesh and dk. crim.</i>	<i>wh., cin. and dk. brown.</i>	<i>wh., li. and dk. brown.</i>	<i>wh., bronze and pur.</i>
	<i>wh., scar. and blue.</i>	<i>wh., li. and dk. lilac.</i>	<i>wh., steel and rose.</i>	<i>wh., cerise and pur.</i>
2624	12 choice varieties Perpetual Self Carnations, 10 seeds of each colour, as follows .....			3 0
	<i>rose.</i>	<i>bronze.</i>	<i>deep rose.</i>	<i>maroon.</i>
	<i>cerise.</i>	<i>pale rose.</i>	<i>scarlet.</i>	<i>carmine.</i>
	<i>scarlet.</i>	<i>yellow.</i>	<i>purple.</i>	<i>crimson.</i>
2625	12 choice varieties Perpetual Fancy Carnations, 10 seeds of each, as follows .....			3 0
	<i>rosy violet.</i>	<i>dark carmine and lilac.</i>	<i>orange.</i>	<i>rose shaded.</i>
	<i>carmine, mottled.</i>	<i>rose and black.</i>	<i>peach and crimson.</i>	<i>cherry and pink.</i>
	<i>pink and purple.</i>	<i>dark purple.</i>	<i>shaded pink.</i>	<i>cerise and purple.</i>
2626	12 choice varieties Perpetual Flake Carnations, 10 seeds of each, as follows .....			3 0
	<i>rose.</i>	<i>deep crimson.</i>	<i>yell. striped.</i>	<i>light scarlet.</i>
	<i>flesh and maroon.</i>	<i>striped.</i>	<i>brown flesh.</i>	<i>light purple.</i>
	<i>scarlet and maroon.</i>	<i>rose and purple.</i>	<i>pink and lilac.</i>	<i>peach and crimson.</i>
2627	12 choice varieties Perpetual Bizarre Carnations, 10 seeds of each, as follows .....			3 0
	<i>rose and lilac.</i>	<i>scarlet and yellow.</i>	<i>rose and scarlet.</i>	<i>flesh and crimson.</i>
	<i>crimson.</i>	<i>yell. and rose.</i>	<i>dark purple.</i>	<i>crimson and slate.</i>
	<i>pink and purple.</i>	<i>pink and maroon.</i>	<i>purple.</i>	<i>fancy.</i>
2628	12 choice varieties Perpetual Picotees, 10 seeds of each variety, as follows.....			3 0
	<i>crimson edge.</i>	<i>fancy rose edge.</i>	<i>brown lilac edge.</i>	<i>fancy purple edge.</i>
	<i>purple edge.</i>	<i>claret edge.</i>	<i>red edge.</i>	<i>chocolate edge.</i>
	<i>rose edge.</i>	<i>fancy maroon edge.</i>	<i>scarlet edge.</i>	<i>fancy chocolate edge.</i>

**TREE SEEDS FOR PLANTATIONS, SHRUBBERIES, AND EXPORTATION.**

For the convenience of our Colonial Correspondents, fresh seed of the undermentioned is kept in stock.

No.		No.	
2629 Alder .....	<i>Alnus glutinosa</i> .	2659 Juniper, scaly .....	<i>Juniperus squamata</i> .
2630 Arbor Vitæ, American ...	<i>Thuja occidentalis</i> .	2660 —, tall .....	<i>excelsa</i> .
2631 Chinese .....	<i>orientalis</i> .	2661 Laburnum, English .....	<i>Cytisus Laburnum</i> .
2632 Ash, Mountain (Rowan)...	<i>Pyrus aucuparia</i> .	2662 —, Scotch .....	<i>alpinus</i> .
2633 Bay Tree.....	<i>Laurus nobilis</i> .	2663 Larch .....	<i>Larix europæa</i> .
2634 Bead Tree .....	<i>Melia Azedarach</i> .	2664 Laurel, common .....	<i>Cerâsus Laburnum</i> .
2635 Bean Trefoil .....	<i>Anagyris foetida</i> .	2665 —, Portugal .....	<i>alpinus</i> .
2636 Birch, upright .....	<i>Betula alba</i> .	2666 Laurestinus.....	<i>Viburnum Tinus</i> .
2637 —, weeping .....	<i>pendula</i> .	2667 Lilac .....	<i>Syringa vulgaris</i> .
2638 Bladder Seena .....	<i>Colutea arborescens</i> .	2668 Oak, American .....	<i>Quercus americana</i> .
2639 Broom, Spanish .....	<i>Spartium junceum</i> .	2669 —, cluster .....	<i>conglomerata</i> .
2640 Cedar, Deodar .....	<i>Cedrus Deodara</i> .	2670 —, Cork .....	<i>Suber</i> .
2641 Chaste Tree .....	<i>Vitex Agnus castus</i> .	2671 —, English.....	<i>pedunculata</i> .
2642 Chestnut, Horse.....	<i>Asculus Hippocastanum</i> .	2672 —, evergreen .....	<i>Ilex</i> .
2643 —, Spanish.....	<i>Castanea vesca</i> .	2673 —, Fulham .....	<i>dentata</i> .
2644 Christ Thorn .....	<i>Palurus aculeatus</i> .	2674 —, live .....	<i>virens</i> .
2645 Cypress, upright.....	<i>Cupressus sempervirens</i> .	2675 —, Lucombe's .....	<i>Lucombeana</i> .
2646 —, pyramidal.....	<i>pyramidalis</i> .	2676 —, scarlet .....	<i>coccinea</i> .
2647 Fir, Scotch.....	<i>Pinus sylvestris</i> .	2677 —, Turkey .....	<i>Cerris</i> .
2648 —, Aleppo Pine.....	<i>halensis</i> .	2678 —, jagged-leaved .....	<i>arguta</i> .
2649 —, Pinaster or Cluster ...	<i>Pinaster</i> .	2679 Olive Tree .....	<i>Olea sylvestris</i> .
2650 —, Chili .....	<i>Araucaria imbricata</i> .	2680 Phillyrea, narrow .....	<i>Phillyrea angustifolia</i> .
2651 —, Stone .....	<i>Pinus Pineæ</i> .	2681 Privet .....	<i>Ligustrum vulgare</i> .
2652 Hawthorn .....	<i>Crataegus Oxyacantha</i> .	2682 Red Cedar .....	<i>Juniperus virginiana</i> .
2653 Holly .....	<i>Ilex Aquifolium</i> .	2683 Spindle Tree .....	<i>Euonymus europæa</i> .
2654 Jasmine, yellow .....	<i>Jasminum fruticans</i> .	2684 Sterculia, plane-leaved ...	<i>Sterculia plataniifolia</i> .
2655 Judas Tree .....	<i>Cercis siliquastrum</i> .	2685 Strawberry Tree.....	<i>Arbutus Unedo</i> .
2656 Juniper, long-fruited .....	<i>Juniperus macrocarpa</i> .	2686 Sweet Briar .....	<i>Rosa rubiginosa</i> .
2657 —, brown-berried .....	<i>Oxycedrus</i> .	2687 Thorn, black (Sloe) .....	<i>Prunus spinosa</i> .
2658 —, Lycian .....	<i>Lycia</i> .	2688 —, Cockspur .....	<i>Crataegus Crus-galli</i> .
	2689 Tree of Heaven.....		<i>Ailanthus glandulosus</i> .

**FRUIT SEEDS (all of 1861 saving).**

No.		s. d.	No.		s. d.
2690 Apple Pips .....	per packet	6	2703 Nectarine.....	per packet	6
2691 Apricot .....	"	6	2704 Peach .....	"	6
2692 Blackberry, Lawton Giant...	"	6	2705 Pear Pips .....	"	6
2693 Currant, black .....	"	1 0	2706 Plum, Greengage .....	"	6
2694 red .....	"	1 0	2707 Orleans.....	"	6
2695 white.....	"	1 0	2708 Quince .....	"	6
2696 Gooseberry, Champagne .....	"	1 0	2709 Raspberry, red .....	"	6
2697 Golden-drop .....	"	1 0	2710 Strawberry, red Alpine .....	"	6
2698 Greengage.....	"	1 0	2711 British Queen .....	"	1 0
2699 Red Lion .....	"	1 0	2712 Elton Pine .....	"	6
2700 Grape, finest-flavoured.....	"	1 0	2713 Keen's Seedling.....	"	1 0
2701 Mulberry, black .....	"	6	2714 Princess Alice Maud .....	"	1 0
2702 white.....	"	6	2715 Princess Royal.....	"	1 0

**PRIZE ENGLISH HOLLYHOCK SEED.**

The undermentioned have been saved by an English amateur who has devoted many years to the assiduous cultivation of this highly ornamental plant, now rising more than ever into repute. It is worthy of remark, that Hollyhock Seed saved from good varieties proves very true to colour and form.

No. 2716. 12 choice varieties, as follows.....		5 0
General Ben, rosy scarlet.	Miss Ashley, creamy fawn.	Pink Perfection, rich pink.
Hon. Mr. Ashley, lilac peach.	Celestial, pale blush.	Fearless, pale cream.
Mignon, scarlet.	Blushing Bride, pink blush.	Solfaterre, sulphur.
Lizzy, clear peach.	Sylvia, rose pink.	Queen of the Whites.
No. 2717. 24 choice varieties, as follows .....		10 0
Blushing Bride, pink blush.	Pearl, delicately tinted pink.	Pourpre de Tyre, rich purple.
Sylvia, rose pink.	Celestial, pale blush.	Lilacina, lilac.
Miss Nightingale, primrose.	Queen of Whites, pure white.	Black Prince, shining black.
Glory, rich crimson.	Sceptre d'Or, yellow, scarlet base.	Venus, pale flesh pink.
Leucantha, straw, tinted with apricot.	Queen of Bulls, pale buff, compact.	Purple Perfection, bright purple.
Fearless, pale creamy fawn.	Saffron, clear saffron.	Lady Willoughby d'Esresby, cream.
Vesta, deep pink.	Alba pulchella, delicate white.	Saturn, apricot.
Glory of Cheshunt, light rosy red.	Pink Perfection, rich pink.	Empress, fawn with apricot base.
No. 2718. 8 choice varieties .....		3 0

## COLLECTIONS OF FLOWER SEEDS.

*J. C. & Co. feel assured that the following Collections will give entire satisfaction, as they are executed in the most liberal manner.*

## HARDY ANNUALS.

	s. d.		s. d.
100 finest selected varieties, separate.....	20 0	25 finest selected varieties, separate .....	5 0
50 do. do. do. " .....	10 0	12 do. do. do. " .....	2 6

## HALF-HARDY ANNUALS.

100 finest selected varieties, separate.....	30 0	25 finest selected varieties, separate .....	7 6
50 do. do. do. " .....	15 0	12 do. do. do. " .....	4 0

## HARDY PERENNIALS.

100 finest selected varieties, separate.....	25 0	25 finest selected varieties, separate .....	6 6
50 do. do. do. " .....	12 6	12 do. do. do. " .....	3 6

## HALF-HARDY PERENNIALS.

25 finest selected varieties, separate .....	7 6	12 finest selected varieties, separate .....	4 0
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## GREENHOUSE SEEDS.

25 choice selected varieties, separate .....	10 6	12 choice selected varieties, separate.....	6 0
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## STOVE SEEDS.

25 finest selected varieties, separate .....	10 6	12 finest selected varieties, separate .....	6 0
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## GREENHOUSE CLIMBERS.

12 beautiful varieties, separate .....	7 6	6 beautiful varieties, separate.....	4 0
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## HARDY CLIMBERS.

12 finest varieties, separate.....	2 6	6 finest varieties, separate .....	1 6
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## SUITABLE FOR ROCK-WORK.

12 fine selected varieties, separate .....	4 0	6 fine selected varieties, separate .....	2 0
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## AQUATICS.

6 splendid varieties, separate, including Victoria Regia.....	10 0
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## ORNAMENTAL GRASSES.

12 fine selected varieties, separate.....	2 6	6 fine selected varieties, separate .....	1 6
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## HARDY ORNAMENTAL-FOLIAGED PLANTS.

6 fine varieties, separate.....3s. 6d.

## ANNUALS FOR FORMING LARGE BEDS.

12 large packets, separate .....	10 0	6 large packets, separate .....	5 0
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## NEW ANNUALS.

12 extra-fine varieties, separate.....	10 0	6 extra-fine varieties, separate .....	5 0
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## INDIAN SEEDS.

25 fine selected varieties, separate.....	10 0	12 fine selected varieties, separate.....	5 0
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## EVERLASTING FLOWERS (Immortelles).

12 splendid varieties, separate .....	4 0	6 splendid varieties, separate.....	2 6
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## CALIFORNIAN SEEDS.

25 fine selected varieties, separate .....	5 0	12 fine selected varieties, separate.....	2 6
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## CONIFERS.

6 extra-choice varieties.....	12 0	6 fine varieties.....	5 0
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## SWEET-SCENTED ANNUALS.

12 selected varieties, separate .....	2 6	6 selected varieties, separate .....	1 6
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## HALF-HARDY CLIMBERS.

12 finest selected varieties .....	4 0	6 finest selected varieties .....	2 6
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## SUNDRY HARDY GREENHOUSE AND STOVE PLANTS.

### ACHIMENES.

This highly ornamental genus, whose beauties are so well known, will succeed well in any rich light soil, and may be grown in all places where an ordinary Cucumber or Melon frame is used, in which they may be started. Most of the species are dwarf, compact, and branching in habit, and as objects of ornament are equal to any herbaceous tropical plants. Our selections form a large Collection; for list of names see our Plant and Bulb Catalogue.

Per doz., dry roots, one of each..... 4s.  
 " " two of each ..... 6s.

Per doz., dry roots, three of each ..... 9s.  
 Sufficient to make 12 good pots for exhibition... 12s.

### ACACIA.

These favourite Greenhouse ornaments present an almost endless variety of form, are very free blooming, and of easy culture; ornamental both in bloom and foliage. Our selection, in 6 varieties, at 1s. each.

### AGAPANTHUS.

Highly ornamental, free, umbelliferous flowering Plants, suitable for cold frame or Greenhouse; very useful for single specimens and for pedestals. During summer and autumn require abundance of water while growing.

Umbellatus..... each, 1s.      Umbellatus albus... each, 2s. 6d.      Umbellatus foliis variegatis ...each, 2s. 6d.

### AGATHÆA CÆLESTIS VARIEGATA.

New, neat, dwarf, and compact in habit, with box-like foliage margined with white. A most desirable bedding plant for edgings..... 6s. per doz. 9d. each.

### ARAUCARIA.

These are amongst the most striking and ornamental of Greenhouse Conifers; in growth and foliage remarkably handsome.

Araucaria Bidwilli..... 7s. 6d.      A. Cunninghami ..... 7s. 6d.

### AZALEAS (Indian).

These splendid flowering Shrubs are indispensable to all collections for winter and early spring flowering. Distinct named collections, one of a sort, our own selection, well set with flower-buds, 18s., 21s., to 30s. per doz.

### AZALEAS (Belgian).

Very desirable, fragrant, free blooming; admirably adapted for early forcing. First-rate named varieties, in distinct colours, 1s., 1s. 6d., and 2s. each.

### BEGONIA.

A very interesting tribe of ornamental-foliaged Stove Plants, of very easy culture; no stove should be without a collection of them. For list of names see Plant Catalogue.

Our selection, winter-flowering varieties ..... 1s. 6d. to 2s. 6d. each.  
 " ornamental-foliaged varieties..... 1s. 6d. to 2s. 6d. "

### BOUVARDIAS.

These plants freely produce large clusters of blossoms, varying in colour from pure white to vivid scarlet. The hybrids named below are most serviceable as Conservatory winter-flowering plants.

Oriana, Delicata, Laura, and Hogarth.....8d. each.

### CALCEOLARIAS (Shrubby Varieties).

Many of the large-flowered highly-coloured varieties are extremely serviceable as pot-plants for Greenhouse decoration. 9s. per doz.

### CALCEOLARIAS (Herbaceous).

From finest strain of seed, 6s. per doz.

### CAMELLIAS.

Fine plants, well set with flower-buds, selected from a collection of over 200 finest established varieties.

With flower-buds, 2s. 6d., 3s. 6d., to 5s. each.

**CANNAS.**

These are magnificently-foliaged plants for Greenhouse and for planting out in summer, their luxuriant gorgeous foliage imparting a rich tropical appearance; in great variety. For list of names see Bulb and Plant Catalogues. 1s. each.

**CARNATIONS.**

Novel varieties selected from a very celebrated Continental Collection; quite a new strain in this interesting Class, containing many distinct types, and highly recommended. Per doz. pairs 18s. to 24s.

**CARNATIONS (Tree or Perpetual).**

Our own selection from over 100 first-rate named distinct varieties, the production of a most eminent grower, including all the best-established varieties. 1s. 6d. to 2s. 6d. each; 15s. to 24s. per doz.

**CINERARIAS.**

These new varieties the finest of the season.

	s.	d.		s.	d.
Reynold's Hole .....	5	0	Maid of Astolat.....	5	0
Miss Eyles .....	5	0	The Colleen Bawn .....	5	0
Bridesmaid .....	5	0	Lurline .....	5	0

Older-established varieties 9s. per doz.

**CINERARIA MARITIMA.**

Finely cut silvery foliage, very ornamental; well adapted, from its distinct and beautiful silvery appearance, for single specimens for Greenhouse decoration, also for margins of beds or rockwork. 9d. each; 6s. per doz.

**CITRUS JAPONICA (Otaheite Orange).**

For winter flowering, very fragrant, 2s. 6d. to 3s. 6d.

**COBÆA SCANDENS VARIEGATA.**

A most beautiful rapid-growing Greenhouse Climber, very effective; the most distinctly variegated of any Greenhouse Climber known. 2s. 6d. each.

**COLEUS VERSCHAFFELTI.**

Unquestionably the most strikingly beautiful plant that has been introduced this season. The foliage is elegantly lacinate, on young plants deep crimson margined with bright green, which, as the plants attain size and age, become entirely of a rich glowing crimson. Of most easy culture, requiring only a warm Greenhouse, of rapid growth, and a most desirable plant for specimens for exhibition. 2s. 6d. each.

**CYCLAMEN.**

This well-known genus is highly effective for decorative purposes in the Greenhouse or Conservatory; the following are well-established in pots.

Africanum (microphyllum) .....	1	0	Persicum .....	1	0
Europæum (lilac) .....	1	0	„ album .....	1	0
Latifolium .....	1	6	„ punctatum .....	1	0
Odoratum .....	1	6	Repandum .....	1	6

**DAHLIAS.**

Extra strong pot-roots of **Show, Fancy, Bedding,** and **Pomponé** varieties from our unrivalled Collection, containing more than 200 named varieties; the finest selection from all the collections known.

Show varieties .....	9s. to 12s.	Pomponé .....	9s. to 12s.
Fancy „ .....	9s. „ 12s.	Bedding .....	9s.

**DEUTZIA GRACILIS.**

This very beautiful pure white favourite, in pots, for early forcing, extra strong plants, 1s. to 1s. 6d. each.

## NEW FUCHSIAS.

**Minnie Banks.** The most perfect variety yet offered for habit, growth, and bloom; sepals white, broad, and elegantly recurved to a half circle. Corolla opening goblet-shape, and expanding to an elegant cup-shape, of a clear rich rose tint. 10s. 6d.

**Comet.** A bold and effective large flower, with well-recurved broad scarlet sepals and a remarkably large violet-tinted purple corolla, of an elegant large cup or parachute outline, one inch and a half in width. 10s. 6d.

Selections from the best new varieties of 1861, raised by Messrs. Banks, Cornellsen, and Smith. 1s. 6d. each; 12s. per doz.

Annie.	Figaro.	Marie Cornellsen.	Triomphe de Cornellsen.
Always Ready.	General Boremans.	Prince Leopold.	Victor Emmanuel.
Black Prince.	King of Purples.	Perseverance.	White Lady.
Comte de Hainault.	Lord Elcho.	Pioneer.	
Forget-me-not.	Mammoth.	Star of the Night.	

## FERNS.

Well established in pots suitable for Fern Cases or Stove and Greenhouse Rockwork, as well as for single specimens.

Our selection, 9s. per doz.; purchasers' selection, 12s. per doz. Single Plants, 1s. to 1s. 6d. each.

<i>Asplenium flaccidum.</i>	<i>Doodia lunulata.</i>	<i>Pteris alba lineata</i> , 3s. 6d.
<i>flabelliforme.</i>	<i>Diplazium lasiopteris.</i>	<i>arguta.</i>
<i>viviparum.</i>	<i>Gymnogramma albo-lutca.</i>	<i>argyrea</i> , 2s. 6d.
<i>Adiantum assimile.</i>	<i>Martensi.</i>	<i>longifolia.</i>
<i>Moritzianum.</i>	<i>ochracea.</i>	<i>macrophylla.</i>
<i>hispidulum.</i>	<b>Wittenhalleana</b> , 10s. 6d.	<i>sulcata.</i>
<i>setulosum.</i>	<i>Hypolepis Dicksonioides.</i>	<i>tremula.</i>
<i>Blechnum anstrale.</i>	<i>Lastrea glabella.</i>	<b>tricolor</b> , 2s. 6d.
<i>brasiliense.</i>	<i>paludosa.</i>	<i>Phlebodium aureum.</i>
<i>gracile.</i>	<i>Microlepis polypodioides.</i>	<i>glaucum.</i>
<i>Cyrtomium falcatum.</i>	<i>Nephrodium molle.</i>	<i>Sitobolium davallioides.</i>

For full Collection, see list in Plant Catalogue. For Fern Baskets, see page 51.

## GAZANIA SPLENDENS.

One of the best of Bedding Plants, of deep orange colour, with central disk of black with white spots; very dwarf and free flowering. Plants for propagating, for spring bedding, 6s. per doz.

## GLOXINIAS.

A most lovely genus; treatment same as for Achimenes. We have devoted the greatest care to the cultivation of these charming flowers, and are now able to offer the following new varieties of 1861, in pots, very distinct from any before out. Those marked \* are erect, the others drooping varieties. Blooming plants in pots, our selection, 15s. per doz.; 1s. 6d. each; extra strong, 2s. 6d. each.

*A. Bonnard.	*Charles Raes.	Karl Enke.	Marquis de St. Innocent.
*A. de Kinkler.	Comte F. Dydyński.	*Lady Grosvenor.	MacNary.
Abel Carrière.	Edward Pynaert.	Lady H. Vane.	Pierre von Eckhaute.
Auguste Ender.	Ernest Benary.	*Leon de Fremenville.	Prince A. Demidoff.
C. M. Vanderstraal.	F. Puig.	*Luigi Gullino.	*Victor Lemoine.
Carlo Malenchini.	Frederick Mylins.	Madame A. Leon.	
Camille Piotrowski.	*Gouverneur de Backer.	*Madame Pomery.	
Caroline von Trefurt.	Karl Fellman.	Madame Celeste Winans.	

N.B. For older varieties, see Bulb and Plant Catalogues.

## GERANIUMS, CLOTH-OF-GOLD.

The finest of all the golden variegated varieties; has now stood the test of three seasons, and is justly admired by all who have seen its great superiority over Golden Chain and all others of that class; it is undoubtedly destined to supersede Golden Chain entirely, being much easier propagated, as free in growth as Tom Thumb, and much more effective than any other yellow-foliaged variety. 2s. each; 18s. per dozen.

**Crystal Palace Scarlet.** The most perpetual blooming of all the scarlet varieties; per doz. 6s.  
**Imperial Crimson.**  
**Mrs. Vernon.**  
**Fothergilli.**

} The best bedding varieties of the Nosegay section; 6s. per doz.



**GYNERIUM ARGENTEUM** (*Pampas Grass*).

A splendid ornamental flowering Grass, exceedingly effective; worthy of cultivation in every garden, its immense stalks of silvery plumes invariably attracting admiration.

Extra strong plants to flower next year, 2s. 6d.  
 Ditto ditto ..... 1s. 6d.  
 Well established in pots ..... 9d. to 1s. each.

**HERBACEOUS AND ALPINE PLANTS.**

	s.	d.		s.	d.
Double Primroses, in colours .....per doz.	6	0	Phlox, Perennial varieties .....per doz.	6	0
Hepaticas, in colours....."	6	0	—, new varieties ....."	12	0
Violets, in sorts ....."	6	0	Antirrhinums, in fine variety ....."	6	0
Daisies, fine large double, in varieties ..."	3	0			

**HARDY HERBACEOUS PERENNIALS.**

Our selection, from a collection of over 1200 varieties: for list of names see Plant Catalogue. Our selections for borders, rockwork, or any particular situation, from 4s., 6s., and 9s. per dozen.

**HOLLYHOCKS.**

Fine established plants of the following well-known varieties, extra strong; per doz. 6s.; 9d. each.

Carnea, *flesh*.  
 Cloth of Gold, *orange yellow*.  
 Enchantress, *blush*.  
 Fearless, *pale creamy fawn*.  
 Florence Nightingale, *primrose*.  
 General Bem, *rosy scarlet*.  
 General Havelock, *ruby scarlet*.  
 Gloria Mundi, *crimson*.  
 Honourable Mrs. Ashley, *lilac peach*.  
 Joan of Arc, *silvery blush*.  
 Juno, *salmon red*.  
 Lady Scott, *rosy carmine*.  
 Lady Jocelyn, *cherry crimson*.  
 Lily of the Valley, *white*.

Miss Bradley, *blush*.  
 Memnon, *rosy scarlet*.  
 Nimrod, *claret*.  
 Pearl, *pearly white*.  
 Queen of Denmark, *orange buff*.  
 Royal Albert, *pale fawn*.  
 Rosy Morn, *bright rose*.  
 Susannah, *silvery white*.  
 Sulphur Queen, *sulphur, chocolate base*.  
 Triumphant, *deep scarlet*.  
 Unique, *carmine*.  
 Walden Gem, *ruby crimson*.  
 Village Maid, *crimson peach*.

**MANDEVILLEA SUAVEOLENS.**

Favourite white-blossomed fragrant Greenhouse Climber; small plants 1s. each; strong 2s. 6d..

**PANCRATIUM ILLYRICUM.**

Extra fine-flowering bulbs 9d. each; 8s. per dozen.

**PELARGONIUMS.**

Large-flowered **Show** varieties from a first-rate collection, from 1s. each.

Our selection, 12 varieties, all distinct, 6s.  
 Ditto ditto extra good, 12s.  
 Ditto ditto newer kinds, 18s.

Large-flowered **French** and **English** spotted varieties; selections and prices as in Shows.

**French Fancy** varieties, a fine assortment; selections and prices as in the two former sections.

**PINKS.**

Pinks in named varieties, selected from a first-rate collection; per dozen pairs 6s. to 9s.

**PICOTEES.**

Novel varieties from same source as the Carnations, 18s. to 24s. per dozen pairs.

**TRITOMA** (Kniphofia).

One of the most showy, hardy, herbaceous, late-flowering border plants known, bearing long spikes of crimson and yellow flowers; strong-flowering roots.

*Tritoma uvaria grandiflora*, 1s. to 1s. 6d. each.

**VERBENAS.**

New varieties of 1861, strong plants, 12s. per dozen.

Older do. do. 6s. do.

**SCILLA IMPERATRICE EUGENIE.**

Extra strong flowering bulbs, 1s. each.

**STRAWBERRIES.****New Varieties.**

Sanspareil, 40s. per 100.

Eclipse, 12s. per doz.

Crimson Queen, 7s. 6d. per 100.

Frogmore, Late Pine, 30s. per 100.

Rifleman, 30s. per 100.

Extra Strong in pots for forcing (6s. per dozen).

British Queen.

Black Prince.

Keen's Seedling.

**Older Varieties for planting.**

	s. d.		s. d.
Admiral Dundas .....per 100	5 0	Oscar.....per 100	3 6
Black Prince .....	3 6	Princess Alice Maude .....	3 6
British Queen .....	3 6	Sir C. Napier.....	5 0
Caroline Superb .....	5 0	Sir Harry .....	3 6
Filbert Pine .....	5 0	Wonderful .....	5 0
Keen's Seedling.....	3 6	Wizard of the North.....	3 6

**CACTI.**

We have pleasure in submitting to the notice of our customers these curious, beautiful and easily cultivated plants, which if better known would be universally grown; the singularly grotesque form and gorgeous beauty of many of the varieties render them objects of striking attractiveness, and their peculiarities contrast admirably with the other kinds of Greenhouse and Stove plants. Nearly all the varieties thrive well on out-of-the-way shelves, in places where other plants would be burnt up, requiring but little attention; one removal in the course of the season, into a mixture of old spent loam; very old mortar and brick rubbish is highly advantageous; very little water is required, except when they are making their young growth.

*Our selection of good varieties 9s., 12s. and 24s. per dozen.*

**ORCHIDS.**

We have cultivated a very fine collection of Orchids, but as the price depends so much upon the size of the plants, we did not think it advisable to give a detailed price-list, but shall be happy to send the prices of any sorts upon application. We can offer

12 good and distinct varieties, *our selection*, from £5 to £12.

## VINES.

We have much pleasure in offering strong and particularly well-ripened Canes of the under-mentioned Vines, all our own growth. The great advantage derived by planting thoroughly ripened Canes has induced us to pay great attention to our crop this season, and we are consequently enabled to offer them much stronger than usual.

We have also a fine stock of extra-strong short-jointed, well-ripened plants, grown purposely for forcing in pots, and capable of producing 6 to 8 bunches of grapes each next year: the cultivation of Vines in pots is becoming so general now, that comments on the many advantages of that system are unnecessary; by planting out Vines of this size in Vinery borders one season is gained.

Hardy varieties for planting against walls or trellises. A whole season is often lost, or the plants very much checked, if the wood is not thoroughly ripened when first planted out; we shall take great care not to send any but what are in proper condition. All other varieties not named in this list can be supplied at the usual prices; those marked II are the most hardy and best suited for out-door planting.

Strong Canes for planting, 3s. 6d., 5s., and 7s. 6d.

Extra-strong Canes for fruiting and forcing in pots, 10s. 6d. to 12s. 6d.

Hardy strong Canes for walls, 3s. 6d. to 5s.

- |   |  |
|---|--|
| Black Hamburgh .....                                | Berries, round deep purple, rich and juicy; one of the finest grapes for cold Vinery.  |
| Black Barbarossa .....                              | Large deep purple, bunches very large; fine late grape for winter.                     |
| II Black Prince .....                               | Roundish oval, sweet and rich, handsome long bunch; a good bearer.                     |
| Black Damascus .....                                | Very large, long oval, good substance, dark purple.                                    |
| II Chasselas Musque (or Josling's St. Albans) ..... | Round, white, with rich Muscat flavour; requires plenty of air.                        |
| Chasselas Royal .....                               | Amber, round, rich, juicy, and sweet.  |
| Grizzly Frontignan .....                            | Round, yellow, shaded red, fine Frontignan flavour.                                    |
| Muscat of Alexandria .....                          | Oval, very large, pale amber, finest-flavoured grape grown; requires heat.             |
| II Precoce de Malingre .....                        | Round, white and sweet, very early and free bearer.                                    |
| II Royal Muscadine .....                            | Round, very juicy, free bearer; does equally well for vineries, pots, or open borders. |
| White Frontignan .....                              | Greenish white, round, fine Frontignan flavour; an abundant bearer.                    |
| White Nice .....                                    | Round, greenish white, sweet, but not rich; bears enormous bunches.                    |

## LILIUM GIGANTEUM.

This is by far the most stately of all the Lilies for cool greenhouse or conservatory decoration; from 4 to 8 feet in height, with large, glossy, dark green, heart-shaped leaves, and terminal racemes of drooping, trumpet-shaped, white flowers, marked with violet-crimson streaks. It has proved hardy in some countries, and we think there is great evidence of its being found ultimately hardy in all localities.

Fine strong flowering bulbs..... each 12s. 6d.

**NOTICE.**—As many of the Plants offered will be cheaper in May, James Carter & Co. particularly request that their next General Catalogue of Bedding and other Plants may be applied for.

It will be published on the 1st of May, and forwarded gratis and post free on application.





### HANGING FERN BASKETS.

The above Hanging Baskets, many of new design, are extremely ornamental for Greenhouses, Stoves, or Conservatories. The above prices marked on the baskets are for the baskets *filled* with Ferns; we can also supply *empty* baskets from 1s. to 3s. 6d. each, according to size; we have also many other designs not figured in the above engraving for want of space.

### HANGING FLOWER BASKETS.

We can also supply Baskets of the above patterns, filled with Hyacinths, Tulips, Crocus, &c., at from 3s. 6d. to 10s. 6d. each.

## BULBS FOR SPRING PLANTING.

### GLADIOLI.

*Bulbs ready to send out at the end of October.*

We have great pleasure in introducing to the notice of our Customers the following splendid collections of Gladioli, which have been selected by us from the stocks of the most celebrated French and Dutch cultivators; we wish also to call attention to their moderate price.

**Pot culture.**—Pot in light turfy loam and sand, with good drainage, mixing this compost with well-rotted leaf-mould, in about the proportion of one-third; prepare a bed of litter from the stable, which cover with tan or any dry and light composition, and place a frame on it, in which plunge the pots: give plenty of air, and withhold water until the bulbs have made root and the leaves appear; it may then be carefully given, when there is no danger of frost. Should the winter prove very severe, bank the frame up well with dung or litter, and cover the lights with straw or Bass Mats. If it should not be convenient to carry out the above directions, the following will be found a very good method of cultivation: pot in sandy loam as above, and place the pots in Greenhouse or Conservatory, near the glass, taking care that the degree of temperature is sufficient to keep out frost.

**Garden culture.**—Prepare your beds or borders by well digging them a spit deep, burying a stratum of good leaf-mould or rotten manure at the bottom. The surface soil should be rendered open by mixing sand with it and being well broken in digging: plant the bulbs in clumps or rows according to fancy, about six inches deep, taking care to cover them one inch deep with sand previous to re-covering with mould. After the roots are planted, rake the ground well, giving it a southern inclination if possible; keep free from weeds, and stir surface occasionally; in severe weather cover the bed with two or three inches of dry litter. In the later stages of growth, the bulbs should be kept moderately moist.

### French Seedlings from Gandavensis.

These varieties, from their free-flowering habits, strong trusses of bloom, and magnificent richness of colour, are among the handsomest Autumnal ornaments to the garden, and beyond a doubt the finest of all the Gladioli tribe.

### Fine free-blooming varieties from Gandavensis (for Clumping).

The following seedlings from Gandavensis are more robust in habit than the *Ramosus* varieties, and are richer in colour. All weak-growing kinds we have discarded, and offer the under-mentioned splendid varieties at an unprecedentedly low price. For centres of beds, planting among the Rhododendrons or in Shrubberies, their effect is magnificent.

	s. d.		s. d.		s. d.
Brenchleyensis, <i>vermilion</i> .....doz.	5 0	Fulgens aurca picta .....doz.	3 6	Monsieur Blouet, <i>rosy carmine</i> doz.	3 6
Courantii fulgens, <i>crimson</i> .....	2 6	Gandavensis, <i>scarlet and yellow</i>	2 6	3 of each of the above 10 sorts,	9s. 6d.
Don Juan, <i>orange red, yel. spots</i>	5 0	Madame Coudère, <i>car., shaded</i>	3 6	6 do. do. do.	17s. 6d.
Emma, <i>carmine, shaded</i> .....	5 0	Madame Henrinea, <i>yel. &amp; lilac</i>	5 0	12 do. do. do.	32s. 6d.
Fanny Rouget, <i>rose, wh. &amp; car.</i>	3 0				

### Newer varieties from Gandavensis (for Clumping)

Adonis, <i>yellow and carmine</i> ....doz.	6 0	Daphné, <i>cherry, striped carm.</i> doz.	7 0	Monsieur Corbay, <i>pur. striped</i> doz.	6 0
Aglæ, <i>salmon</i> .....	5 0	Egérie, <i>salmon and dark rose</i> ...	6 0	Pollonia, <i>rose and carmine</i> ...	5 0
Archimède, <i>red, carmine striped</i>	5 0	Gil Blas .....	6 0	3 of each of the above 12 sorts,	17s.
Aristote, <i>carnation rose, varieg.</i>	5 0	Hélène, <i>french white, pur. stri.</i>	6 0	6 do. do. do.	32s.
Comtesse de Bresson, <i>red, var.</i>	6 0	Janaire, <i>orange red</i> .....	5 0	12 do. do. do.	58s.

### Selected varieties of French Seedlings from Gandavensis.

	doz.	each.		doz.	each.
Berenice, <i>beautiful rose red, variegated</i> .....	10 0	1 0	Madame Binder, <i>pure white, rose striped</i> .....	12 0	1 3
Calendulaceus, <i>salmon rose</i> .....	10 0	1 0	Madame Eugénie Mésard, <i>rose striped</i> .....	10 0	1 0
Canari, <i>tight yellow, rose striped</i> .....	10 0	1 0	Madame Victor Verdier, <i>rose, violet spotted</i> ...	10 0	1 0
Châteaubriand, <i>cherry red, variegated</i> .....	10 0	1 0	Mars, <i>bright scarlet</i> .....	10 0	1 0
Docteur Andry, <i>bright orange</i> .....	10 0	1 0	Mathilde de Landvoisin, <i>white, carmine striped</i>	12 0	1 3
Edith, <i>carnation, striped</i> .....	10 0	1 0	Mazeppa, <i>rose, yellow striped</i> .....	10 0	1 0
Endymien, <i>rose, tinted purple</i> .....	10 0	1 0	Melas, <i>rose, red var.</i> .....	10 0	1 0
Esope, <i>red, purple striped</i> .....	10 0	1 0	Monsieur Vinehon, <i>salmon, red and white</i> .....	10 0	1 0
Eugène Verdier, <i>crimson, purple spotted</i> .....	10 0	1 0	Nemesis, <i>clear bright rose, white stripe</i> .....	10 0	1 0
Fischerianum, <i>striped rose</i> .....	10 0	1 0	Neptune, <i>red, variegated carmine</i> .....	10 0	1 0
Galathée, <i>carnation striped</i> .....	10 0	1 0	Ninon de l'Enclos, <i>carnation and rose</i> .....	12 0	1 3
Goliath, <i>tight red, carmine striped</i> .....	10 0	1 0	Oracle, <i>brilliant cherry rose</i> .....	10 0	1 0
Gassendi, <i>carmine, spotted</i> .....	10 0	1 0	Osiris, <i>purple and white</i> .....	10 0	1 0
Hébé, <i>carnation, striped carmine</i> .....	10 0	1 0	Othello, <i>tight orange red</i> .....	10 0	1 0
Impératrice, <i>carnation striped</i> .....	10 0	1 0	Pégase, <i>carnation and chamois</i> .....	10 0	1 0
Jeanne d'Arc, <i>white, tinted rose</i> .....	10 0	1 0	Pénelope, <i>french white, carmine striped</i> .....	10 0	1 0
John Bull, <i>white spotted</i> .....	12 0	1 3	Prémices de Montrouge, <i>bright red</i> .....	10 0	1 0
Le Bariole, <i>carmine striped</i> .....	10 0	1 0	Rebecca, <i>white and lilac</i> .....	12 0	1 3
Léon Leguay, <i>rose, carmine spotted</i> .....	10 0	1 0	Sulphureus, <i>sulphur-coloured</i> .....	12 0	1 3
Madame A. Lebevre, <i>fine light rose</i> .....	10 0	1 0	Vesta, <i>white and carmine</i> .....	10 0	1 0



## GLADIOLI (continued).

Newest and choicest varieties of French Seedlings from Gandavensis.

	each	s. d.		each	s. d.
Anatole Levanneur, violet red, spotted .....	1	6	Madame Briot, satin rose, carmine spots .....	1	6
Berthe Rabourdin, pure white, carmine spots .....	3	0	Madame de Vetry, sulphur, white and carmine .....	3	0
Bossuet, orange, rose spotted .....	5	0	Madame Haquin, yellow, white and lilac .....	2	3
Calypso, carnation striped rose .....	2	3	Madame Hardy, rose, violet spots .....	3	0
Celine, rosy white, marbled .....	2	6	Madame Leschle, white, purple spots .....	5	0
Cérés, pure white and purple .....	3	0	Madame Pauline, white, red spotted .....	1	6
Charles Rouillard, bright carmine .....	1	6	Madame Rabourdin, rose carmine, flaked with white .....	7	6
Clémence, satin rose, carmine striped .....	2	0	Madame Souchet, delicate flesh, deep rose spots .....	3	0
Comte de Morny, dark cherry-red .....	3	0	Madame Vilmorin, rose, white centre, dark rose edgings, beautiful carmine stripes .....	7	6
Comtesse Paul de Ségur, rose, carmine striped .....	2	6	Maria du Mortière, white, slightly striped with rose, violet purple spots .....	6	0
Diane, delicate carnation and rose .....	3	0	Marie, pure white, carmine spotted .....	3	6
Due de Malakoff, orange red and sulphur .....	3	0	Midas, red spotted .....	1	6
Eldorado, fine pure yellow .....	6	0	Molière, dark carmine .....	5	0
Erato, delicate rose, carmine striped .....	3	0	Napoléon III., bright scarlet, striped .....	3	0
Eugénie Verdier, crimson rose .....	3	6	Olympe Leseuyer, orange and rose .....	3	0
Eveline Bryce, salmon, spotted carmine .....	1	6	Ophir, dark yellow and purple .....	3	0
Florian, cerise, white lines .....	2	0	Plinc, light cherry and white .....	3	6
General McMahon, orange cherry, red spots .....	2	0	Pluton, deep scarlet, white spots .....	5	0
Isoline, carnation, carmine spots .....	2	3	President Decaisne, cerise, carmine spots .....	2	0
Junon, white, striped lilac .....	6	0	Princesse Mathilde, light rose and carmine .....	3	0
Keteleer, brilliant carmine .....	1	6	Rembrandt, bright deep scarlet .....	3	0
L'Eclair, vermillion, deep carmine spots .....	1	9	Raphaël, deep red vermillion .....	5	0
Le Poussin, light red, beautifully marked .....	6	0	Solfaterra, fine pure yellow .....	7	6
Léonard de Vinci, violet rose, striped .....	8	0	Thérèse, bright rose .....	1	6
Limé, orange cherry, yellow spots .....	3	6	Vérida, tight rose and lilac .....	3	0
Lord Granville, yellow, spotted .....	1	6	Vicomtesse de Belleval .....	3	0
Lord Raglan, fine large, salmon .....	2	0	Vulcan, scarlet purple velvet .....	2	3
Louis Van Houtte, velvety carmine, purple spots .....	1	6			
Madame Basseville, cherry and white .....	3	6			

## New Seedlings from Ramosus.

Amsterdam, brilliant orange, rose, fine white mark ...	0	8	Oscar, most brilliant scarlet, mark short, pure white ...	0	9
Batavia, brill. dark red, lower petals scar., wh. mark	0	8	Paulowna, bright orange rose, lower petals darker ...	0	9
Cavaignac, rose, shaded with brilliant or., white mark	1	6	Paxton, bright rose, orange shade, clear white mark...	1	0
Christiana, bright pink rose, broad mark .....	0	6	Prince de Liechnovsky, brilliant scarlet, white mark...	1	0
Dictator, fine orange, broad mark .....	0	9	Prince of Wales, dark red, fine mark .....	0	9
Due d'Orléans, rose, dark shade, pure white mark ...	0	9	Princess of Orange, bright lilac ro. or., pure wh. mark	0	9
Duke of Devonshire, fine orange rose, broad mark ...	1	0	Princess Sophia, bright ro. shaded with or., mark long	0	6
Dumont d'Urville, brilliant rose, with dark shade, wh.	0	9	Professor Blume, brilliant orange rose, pure wh. mark	1	0
Eclatante frappante, crimson, delicate mark, pure wh.	1	0	Queen Victoria, bright carm. rose, large wh. mark ...	0	4
Ernest Maltravers, bright or. rose, narrow white mark	0	9	Reticulatus, bright pink rose, broad mark .....	0	9
Gloriosus, orange red, narrow mark .....	0	9	Robin Hood, bright lilac or. red, narrow wh. mark...	0	9
Goethe, bright lilac rose, large pure white mark .....	0	9	Rosa Superba, brilliant carmine rose .....	0	9
Henricus, fine rosy red, shaded with lilac, violet ...	1	0	Rouge Claire, orange red .....	0	9
Insignis, brilliant scar., margined with rosy carmine	0	6	Rouge Eblouissante, bright violet rose, lower petals or.	0	9
Jenny Lind, scar., nar. wh. line, edged crim. and car.	0	9	Speciosus, pale orange rose, long white mark .....	0	6
Lafayette, narrow petals, fine red, bordered with violet	0	9	Unique Rouge, dark orange rose, pure white mark ...	0	6
La Fille du Régiment, or. red, wh., edged with carm.	0	9	Van Dam van Isselt, rosy pink, long pure white mark	1	0
Lamartine, pale orange and rose, long white mark ...	1	6	Van Hall, bright lilac orange red, narrow white mark	0	9
Laurens Koster, dark red, small mark, bord. with vio.	0	9	Violet Superbe, delicate lilac rose, white mark .....	0	9
Lehmann, orange red, broad short mark .....	1	6	Vitallina, pale pink rose, long narrow white mark .....	0	6
Lindley, brilliant orange rose, mark long, bor. ro. vio.	1	0	Von Humboldt, fine lilac ro., narrow pure white mark	0	9
Lisette, pink lilac rose, mark wh., with vio. and carm.	0	9	Von Siebold, bright pale orange, long white mark ...	1	0
Lord Grey, violet rose, wh., viol. edge and brill. carm.	0	9	Walter Scott, fine dark red, marked white and lilac...	0	9
Lord John Russell, brilliant orange rose, mark white	0	9	Washington, bright rosy lilac, white bord. with lilac	1	6
Lord Peel, lilac orange red, mark narrow white .....	0	9	Wilhelmus, pale rose orange, long white mark .....	0	6
Lord Wellington, brilliant orange rose, fine mark ...	1	0	Zenobia, brilliant carmine rose, short white mark ...	0	9
Louis Philippe, brilliant orange rose, broad short mark	0	9	50 finest varieties, our own selection, for £2 2s.		
Mehemet Ali, bright or. with dark shade, small mark	0	9	25 do. do. do. £1 1s.		
Meline, dark ro., large mark, bor. with crim. and scar.	2	6	12 do. do. do. 11s.		
Monstrosus, bright rose, large mark, bord. with lilac	0	9			

## NEW DWARF HYBRIDS.

Fine ornaments in pots or vases, for Greenhouse or Conservatory decoration.

Balaklava, rosy lilac, carmine feather .....	1	0	Inkermann, orange pink, carmine edged .....	0	6
Bertha, bright rose, dark rose feather .....	1	0	Maréchal Carobert, pink, rose and white .....	1	0
Chauve-souris, lilac rose, slight feather .....	0	9	Maréchal Pelissier, mauve-shaded .....	1	0
Erato, cream and white, dark rose tube .....	0	6	Sebastopol, dark red, small feather .....	0	6
Euterpe, delicate pink, distinct feather .....	0	9	Terpsichore, mauve-colour .....	0	6
Henriette, orange rose, white feather .....	1	0	Thalia, delicate pink, lilac feather .....	0	9
Impératrice Eugénie, rosy cream, var. ....	1	6	Taglioni, rose pink, variegated feather .....	1	0

The above splendid collection for 10s.

## MIXED GLADIOLI.

Finest mixed French seedlings from Gandavensis ..... per 100 17s. 6d., per doz. 2s. 6d.

# SUNDRY HARDY AND GREENHOUSE BULBS.

## AMARYLLIS.

	s.	d.
Ackermanni, crimson .....	each	3 6
Aulica, scarlet and green .....	"	3 6
platypetala .....	"	5 0
Crocata, orange scarlet .....	"	3 0
grandiflora, vermillion .....	"	3 6
superba, scarlet .....	"	4 0
Formosissima ( <i>Jacobæa Lily</i> ) .....	per doz.	5 0
Johnsoni, scarlet and white .....	each	3 6
striata, striped .....	"	3 6
Lutca ( <i>Sternbergia lutea</i> ) .....	per doz.	2 6
Prince of Orange .....	each	4 0
Revoluta .....	"	4 0
Vittata, striped .....	"	4 0
superba .....	"	4 0
Mixed Seedlings, flowering bulbs .....	"	3 6

## ANEMONES.

### Finest Double.

100 in 100 selected varieties .....	24	0
Finest double scarlet .....	per 100	10 0
— mixed .....	"	6 0
Finest single scarlet .....	"	6 0
— mixed .....	"	4 0

### Double (for Clumping).

Blanche et Rouge, red, var. ....	per doz.	2 6
Celestine, fine blue .....	"	2 6
Feu Superbe, brilliant scarlet .....	"	2 6
Harold, purple blue .....	"	2 6
Josephine, dark scarlet .....	"	2 6
L'Eclair, scarlet .....	"	2 6
L'Ornement de la Nature, deep blue .....	"	2 6
Lord High Admiral, crimson .....	"	2 6
Lord Nelson, violet blue .....	"	2 6
12 of each of the above 9 sorts .....	20	0
6 of each of the above 9 sorts .....	10	6
3 of each of the above 9 sorts .....	5	6

## ARUM.

Dracontium, green .....	each	0 6
Dracunculus, brown .....	"	0 6
Italicum, light yellow .....	"	0 4
Tenuifolium, white .....	"	0 6

## BRAVOA.

Geminiflora, crimson .....	each	1 0
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## CALANTHE.

Discolor, white .....	each	1 0
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## CALLA.

Æthiopica, white .....	each	1 0
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## COMMELINA.

Cœlestis, blue .....	per doz.	2s. each	0 3
alba, white .....	"	2s. "	0 3

## CLIVIA.

	s.	d.
Nobilis, scarlet and yellow .....	each	2 6

## CORYDALIS.

Eximia .....	each	1 6
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## CRINUM.

Capense, pink .....	each	1 0
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## CYPRIPEDIUM.

Calecolus, yellow .....	each	2 6
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## DOG'S-TOOTH VIOLETS (*Erythronium*).

Red .....	per doz.	1 0
White .....	"	1 6
Yellow ( <i>Erythronium americanum</i> ) .....	each	0 9

## EUCOMIS.

Punctated, spotted .....	each	6 0
Regia, green .....	"	4 0

## FUNKIA.

Cucullata .....	each	0 6
Albo-marginata .....	"	1 0
Viridi-marginata .....	"	0 6
Japonica .....	"	1 0
Lanceolata .....	"	0 6
Ovata .....	"	0 6
Subcordata .....	"	0 6
Undulata .....	"	0 6
medio picta .....	"	1 0

## GESNERIAS.

Blassi, dark scarlet .....	each	2 0
Cinnabarina, orange scarlet .....	"	2 0
Densiflora .....	"	2 6
Donckeleari, crimson and white throat .....	"	3 6
Nigella hispanica .....	"	2 6
Zebrina, yellow and scarlet .....	"	1 0
splendens, scarlet and yellow .....	"	2 0
splendissima .....	"	2 6

## GLORIOSA.

Planti .....	each	3 6
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## HÆMANTHUS.

Coccineus, red .....	each	2 6
Puniceus, scarlet .....	"	2 0

## HELONIAS.

Bullata, purple .....	each	0 6
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**SUNDRY HARDY AND GREENHOUSE BULBS** *(continued)*.

ISMENE.

ISMENE.		s.	d.
Calathina, <i>white</i> .....	each	1	0
Undulata, <i>white</i> .....	"	0	6

LILIUM.

Aurantiacum.....	per doz.	3	6
Canadense .....	each	1	0
Catesbæi .....	"	1	0
Croceum .....	"	0	6
Excelsum .....	"	2	6
Eximium .....	"	1	0
giganteum .....	7s. 6d. to	12	6
Japonicum .....	"	7	6
Ycuustum .....	"	2	0

**LILIUMS (Large).**

Lancifolium.....	each	1	6
punctatum .....	"	2	0
rubrum .....	"	2	0

LILY OF THE VALLEY.

Single white.....	per doz.	1	0
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ORCHIS.

Conopsca .....	each	0	9
Latifolia .....	"	0	9
Maculata .....	"	0	9
Morio .....	"	1	0

**RANUNCULUS. PERSIAN DOUBLE.**

100 finest named varieties, separate .....	20	0
50        "                  "                  " .....	12	0
Extra fine mixed, per "100 .....	5	0
25 finest named varieties, separate .....	6	6
12        "                  "                  " .....	3	6
Fine mixed, per 100 " .....	3	0

**For Clumping.**

	per 100.	doz.
Commodore Napier, <i>fine edged</i> .....	10 0	1 6
Firball, <i>deep scarlet</i> .....	10 0	1 6
Mont Blanc, <i>pure white</i> .....	18 0	2 6
Eil Noir, <i>finest black</i> .....	25 0	3 0
Ophir d'Or, <i>yellow spotted</i> .....	10 0	1 6
Sunflower, <i>bright yellow</i> .....	10 0	1 6
12 of each of the above 6 sorts .....		10 6
6 of each of the above 6 sorts .....		5 6

**New Scotch.**

**Fine mixed** .....per 100 12s., doz. 1 6

**RANUNCULUS, Turban.**

RANUNCULUS, Turban.		<i>s. d.</i>	<i>s. d.</i>
	per 1000.	1000.	100.
Dark crimson or black .....	17	6	2
New white, <i>Hercules</i> .....			10
Scarlet, <i>Romano</i> .....	17	6	2
Séraphique, <i>citron</i> .....	17	6	2
Yellow, <i>Merveilleuse</i> .....	20	0	2
Finest mixed, all varieties.....			3

**RHEXIA.**

Virginica, purple .....	each	0	6
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**SAUROMATUM.**

**Guttatum** .....each 5 0

**SISYRINCHIUM.**

Odoratissimum .....each 1 0

**TIGRIDIA.**

Canariensis.....	each	0	9
Cœlestis.....	"	0	9
Pavonia.....	per doz.	3	0
conchiflora.....	"	2	6
Speciosa.....	"	3	0

TRITONIA.

Aurca, orange.....	cach	0	6
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**TUBEROSES. DOUBLE.**

Fine solid roots.....	per doz.	3	0
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VALLOTA.

Purpurca, <i>fine scarlet, strong</i> .....	each	2	0
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**ZEPHYRANTHES.**

Atamasco .....	per doz.	3	0
Rosca .....	cach	0	9

**BULBS GROWING ON FOR EARLY BLOOMING.**

For the convenience of those of our Customers who might be prevented from ordering Bulbs at the usual planting Season, we potted and put into glasses last October a number of Hyacinths, Narcissus, &c., which we have kept growing on at our Nursery, and offer as under.

<b>HYACINTHS, best named varieties,</b>			in pots.....	per doz.,	9s. to	12 0
Do.	do.	do.	in ordinary glasses .....	„	12s. to	15 0
Do.	do.	do.	in the new-shaped glasses .....	„	18s. to	24 0
Do.	do.	do.	in moss ready for planting in pots or glasses .....	„	9s. to	12 0

<b>POLYANTHUS NARCISSUS</b> , best varieties, in pots .....	”	12	0
<b>TULIPS</b> , finest varieties, in pots .....	”	9s. to	18 0

# JAMES CARTER & CO.'S COLLECTION OF GARDEN SEEDS FOR 1862,

OR

## COMPLETE ASSORTMENTS OF VEGETABLE SEEDS FOR ONE YEAR'S SUPPLY.

In the following Collections it will be observed that there are *fewer kinds* than is usual in similar Assortments, as we have considered that it would be more satisfactory to our Customers to have *increased quantities* of a smaller number of varieties. We have omitted, therefore, any sort of Vegetable that is not usually grown in Kitchen Gardens, and have *doubled the size of the packets* of the remaining most approved varieties.

These Collections are always kept ready, and can be supplied at a moment's notice.

	No. 1. 10s. 6d.	No. 2. 20s.	No. 3. 40s.	No. 4. 60s.	No. 5. 100s.
Beans, best varieties for succession.....	2 pints.	2 quarts.	3 quarts.	5 quarts.	10 quarts.
—, French and Runners .....	1 pint.	2 pints.	3 pints.	3 pints.	7 pints.
Beet, including Carter's St. Osyth, recom- mended by the Royal Horticultural Society. }	.....	1 pkt.	1 oz. & 1 pkt.	1 oz. & 1 pkt.	3 oz. & 1 pkt.
Borecole, including Cottager's Kail and Aspa- ragus Kail.....	2 pkts.	3 large pkts.	3 large pkts.	3 large pkts.	5 large pkts.
Brussels Sprouts, best Imported .....	1 pkt.	1 pkt.	1 large pkt.	1 large pkt.	1 large pkt.
Broccoli, for succession, including Grange's Au- tumn white and Snow's Superb .....	3 pkts.	3 pkts.	3 large pkts.	6 large pkts.	8 large pkts.
Cabbage, for succession, including Carter's Earliest —, Savoy, best sorts .....	2 pkts. 1 pkt.	3 large pkts. 2 pkts.	4 large pkts. 3 pkts.	5 large pkts. 2 oz.	8 large pkts. 3 oz.
Capsicum .....	.....	.....	.....	1 pkt.	1 pkt.
Carrot, for forcing and general crop .....	2 oz.	3 oz.	6 oz.	10 oz.	18 oz.
Cauliflower, including Standholder and Walcheren Celery, including the Incomparable dwarf white.	1 pkt. 1 pkt.	1 pkt. 2 pkts.	2 large pkts. 2 large pkts.	3 large pkts. 2 large pkts.	3 large pkts. 3 large pkts.
Cress, plain .....	4 oz.	$\frac{1}{2}$ pint.	$\frac{1}{2}$ pint.	1 pint.	1 quart.
—, curled .....	.....	.....	4 oz.	$\frac{1}{2}$ pint.	1 pint.
—, New Australian Garden.....	1 pkt.	1 pkt.	1 pkt.	1 oz.	2 oz.
—, American .....	.....	1 pkt.	1 pkt.	1 pkt.	1 pkt.
Cucumber, including Carter's Champion and Lyuch's Star of the West.....	.....	1 pkt.	3 pkts.	3 pkts.	4 pkts.
Endive, of sorts.....	.....	1 pkt.	2 pkts.	1 $\frac{1}{2}$ oz.	3 oz.
Leek, Musselburg Giant .....	.....	1 pkt.	1 pkt.	1 pkt.	1 oz.
Lettuce, including Carter's Giant white.....	2 pkts.	3 pkts.	4 pkts.	4 pkts.	8 pkts.
Mustard.....	4 oz.	$\frac{1}{2}$ pint.	1 pint.	1 pint.	2 quarts.
Melon, including Carter's Excelsior, which gained the first prize at the Crystal Palace }	.....	1 pkt.	2 pkts.	2 pkts.	4 pkts.
Onion, including the Giant Maccara and Reading.....	1 oz.	2 oz.	6 oz.	8 oz.	15 oz.
Parsley, Myatt's garnishing.....	1 pkt.	1 oz.	2 oz.	2 oz.	3 oz.
Parsnip, fine selected .....	1 oz.	1 oz.	2 oz.	4 oz.	8 oz.
Peas, best varieties for succession, including Carter's Earliest, Pricetaker, Champion of England, and Carter's Victoria .....	4 pints.	4 quarts.	7 quarts.	12 quarts.	20 quarts.
Radish, best sorts for succession.....	4 oz.	6 oz.	10 oz.	14 oz.	1 quart.
Rampion .....	.....	.....	1 pkt.	1 pkt.	1 pkt.
Spinach, Summer and Winter.....	$\frac{1}{2}$ pint.	1 pint.	1 pint.	2 quarts.	2 quarts.
Salsafy .....	.....	.....	1 pkt.	1 large pkt.	1 large pkt.
Scorzonera .....	.....	.....	1 pkt.	1 large pkt.	1 large pkt.
Turnip, best for succession .....	1 oz.	2 oz.	4 oz.	6 oz.	10 oz.
Tomato, including the new upright variety .....	.....	1 pkt.	1 pkt.	1 pkt.	3 pkts.
Vegetable Marrow, including the New Custard...	1 pkt.	2 pkts.	2 large pkts.	2 large pkts.	2 large pkts.
Herbs, Sweet and Pot .....	.....	4 pkts.	5 pkts.	5 pkts.	8 pkts.
Couve Tronehuda.....	1 pkt.	.....	1 pkt.	1 pkt.	1 pkt.

### Dunn's Patent Solid Marking-Ink Pencils.

*Directions for Use.*—Slightly damp the surface of the Tally or Label, whether of Wood, Parchment, Zine, Galvanized Iron, or unglazed Porcelain, with the wet finger, and write thereon whilst damp; expose the writing to light in a dry place (Sunlight if possible), and it will become fixed and permanent. N.B.—Do not screw the Pencil Point out too far when in use.—Price 1s. each.

## NEW VARIETIES OF VEGETABLE SEEDS.



### NEW WHITE SPROUTING BROCCOLI.

This is a remarkable variety of late *white* sprouting Broccoli. The plant grows to an immense size, and produces from the axil of every leaf a good-sized head, while the crown is terminated by one of large size. These heads, or sprouts, amount sometimes to as many as fifty when a plant is well grown. During the late inclement winter this Broccoli maintained its character for hardness, and gave additional proof of its value by bearing most abundant crops. Season—January to March. Price per packet 1s.

### EARLY HANDSWORTH POTATO.

A very superior kind for forcing in pots and frames, the very earliest for open ground, and a great acquisition for market-gardening purposes. It is very dwarf, growing not more than from 4 to 8 inches high. It is thus reported in the *Gardener's Chronicle*, 1858, p. 457:—"Out of 71 varieties grown for trial in the Horticultural Society's Gardens, the Early Handsworth was by 10 days the earliest;" also at p. 656, "Among Potatoes the Early Handsworth deserves particular notice. It comes in some 10 days earlier than the Ash-leaf Kidney, is excellent in quality, and a very prolific, round, white kind; six plants produced 6 lbs. of Potatoes; its great recommendation, however, is its earliness.....1s. 4d. per peck."

### PHEASANT'S-EYE POTATO.

Earlier than Regents, prolific, and very floury; can be specially recommended.....2s. 6d. per peck.

### DELMAHOY SECOND-EARLY POTATO.

A handsome large-sized Potato, very floury and of good flavour; is one of the best varieties in cultivation as a second-early Potato, and will produce nearly double the crop of any other kind; is free from disease, and a good keeper .....2s. per peck

## NEW VARIETIES OF VEGETABLE SEEDS (*continued*).

### SUTTON'S STUDENT PARSNIP.

This was originated by Professor Buckman, of the Royal Agricultural College, Cirencester, from the Wild Parsnip of Britain.

Professor Buckman has, amongst his numerous experiments in the Botanic Gardens of the College, for many years carried on a system of "selection," by which means he has produced several culinary plants much superior in flavour to the varieties in general cultivation. The Student Parsnip is one of these, and will be found a great acquisition to the public when it is brought into general use. Price, per packet, 1s.

### IVERY'S NONSUCH CELERY.

"*Celery grown at Chiswick in 1859.*—A collection of fifteen samples of Celery was cultivated for comparative trial at the garden in 1859; and various notes and memoranda concerning the peculiarities of the varieties, as well as their quality, were made; but the unusually severe and early autumnal frost injured the plants so much, that these memoranda could not be satisfactorily completed. It has accordingly been thought desirable to submit a more complete collection to a fuller examination during the present season. It may, however, be stated that, so far as the examination was carried, it was found that the variety sent as Ivery's Ne Plus Ultra, by which name it appears that Ivery's Nonsuch was intended, and another called Hood's Dwarf Red, were the two best of the red kinds, both these being of very excellent quality; and that a dwarf variety, sent under the names of Superb Dwarf White and Incomparable Dwarf White, was the best of the white kinds. This latter closely resembles the Céleri Court Hâtif of the French."—*Horticultural Society's Proceedings*. Per ounce, 1s.

### HOOD'S IMPERIAL DWARF RED CELERY.

A stout-growing, very compact, solid and hardy variety, of superior flavour and distinct habit. Recommended by the Horticultural Society as one of the best varieties in cultivation. Per ounce, 1s.

### STRATHMORE HERO PEA.

This new wrinkled Pea was raised in the Vale of Strathmore in 1856, and has since been selected every season with great care. It grows 4 to 5 feet in height; yields an abundant crop, as may be inferred when it is stated that it produced at the rate of fifty-two bushels per acre this last season. Pods large and well filled; flavour excellent; and is well suited for general and late crops: for the latter especially it is invaluable, being little liable to injury from mildew. Price, per quart, 1s. 6d.

### TOMATO DE LAYE.

A new variety, spoken of by Dr. Lindley in the '*Gardener's Chronicle*' of November 24th, 1860, as follows:—

"A NEW UPRIGHT TOMATO, which requires no support. This plant is said to be entirely different from the kinds previously known. Its stem is 2 feet high or more, quite upright, and so remarkably strong and stiff as to be strictly self-supporting—a highly commendable quality. It branches less than the common red Tomato, is less leafy, and does not want so much pinching. The leaves are rather curled, much puckered, very firm, and closely placed on the sturdy branches. Their colour is a remarkably deep shining green. It does not bear so freely as the common Tomato; but its fruit, which is of the same colour, is larger and more regularly formed. In earliness it is intermediate between the Early Red (*rouge hâtif*) and the Great Red (*rouge grosse*). It was raised from seed by GRENIER, the gardener of M. DE FLEURIEUX, at a place called the Château de Laye, wherefore it is to be called the *Tomate de Laye*."

We have grown the above and can specially recommend it. Per packet, 6d.

### KEMP'S INCOMPARABLE CABBAGE.

Very dwarf, early, and compact; delicate flavour. Price per packet, 1s.

### BALDRY'S SCARLET DEFIANCE RHUBARB.

The best sort in cultivation, either for market-gardeners, private growers, or forcing. It was awarded a First Prize, May 2nd, 1860, by the Pomological Society of London, when eighteen varieties were exhibited; a portion of each kind was examined, baked, and also a portion examined green. The Society report that it is unquestionably a First-class variety, very stout in habit, medium in length; pulp very deliquescent, high-coloured, and richly subacid. Excellent for market as well as private growers. Price, per root, 1s. 6d.

### NEW FEATHER-STEM SAVOY.

A true Hybrid, possessing the growth and habit of Brussels Sprouts; a delicate and delicious vegetable, requiring the same treatment as Brussels Sprouts. .... 1s. per packet.



## NEW VARIETIES OF VEGETABLE SEEDS (*continued*).

### MELVILLE'S VARIEGATED GARNISHING KAIL.

*Described in the 'Cottage Gardener' of December 1844, 1860, as follows:—*

"These come true from seeds, and are highly ornamental, the colours being exceedingly brilliant, and of all shades, from magenta to pure white, some fringed, others veined, and some blotched. More beautiful-*'foliated'* plants could not be found, and they might be advantageously made use of for the flower garden in winter."

Per packet 1s.

### CARTER'S DWARF MAMMOTH CAULIFLOWER.

A very early hardy variety, of dwarf and compact habit, with a firm white head, larger than the Walcheren; stands dry weather, comes in before the ordinary early Cauliflower, and is fit to cut after the late variety; can be specially recommended as the best variety for forcing and general use. 1s. per packet.

## NEW LETTUCES.

### CARTER'S GIANT WHITE COS.

DUNNETT'S GIANT BLACK-SEEDED BROWN COS, for autumn sowing.

### CARTER'S GIANT BROWN COS.

The above are three very large crisp and good-flavoured varieties of Lettuce, with fine broad leaves which turn in well, and require no tying; they are much later than the usual sorts of Lettuce, and if sown at the same time, will not commence to run for quite three weeks after the common sorts.

These Lettuces were specially noticed in the *'Gardener's Chronicle'* of September 28, 1861.

1 packet of each of the three varieties 2s. 6d.; each, per packet, 1s.

### WHEELER'S TOM THUMB LETTUCE.

Very dwarf and compact, excellent flavour, crisp, and refreshing.

Price, per packet, 1s.

### BECK'S NEW DWARF GREEN GEM BEANS.

1 foot high, dwarf-branching habit, very prolific; the Beans are a fine green colour, and look well on table.

Price, per quart, 2s.

### CARTER'S ST. OSYTH BEET.

*Medium size, good shape, short top, rich deep blood-red colour, fine flavour, decidedly the best Beet in cultivation (favourably spoken of in the Report of our Seed Fairs, which appeared in the 'Gardener's Chronicle,' September 28, 1861).*

Price, per packet, 1s.

### PERPETUAL SPINACH BEET.

Large leaves of a good colour, flavour superior to Spinach.

Comes into use right through the Autumn.

Price, per packet, 6d.

### JERSEY NAVET.

A Correspondent from Jersey writes to us as follows:—

"The Jersey Navet is a green-topped Turnip, growing in the shape of a Carrot: is the best for Autumn sowing, inasmuch as it is very hardy and self-protecting, by growing into the ground. You can strongly recommend it: the roots are as sweet as nuts."

Price, per ounce, 6d.

### NEW PARSNIP CHERVIL.

A new vegetable, about the size of a Summer Carrot. Seed should be sown in the Autumn. Figured in the *'Gardener's Chronicle'* of Oct. 3, 1861. 6d. and 1s. per packet.

## NEW VARIETIES OF VEGETABLE SEEDS (*continued*).

### APPLEBY'S SEEDLING CUCUMBERS.

We have much pleasure in offering the following six varieties of Cucumbers, which we received last year from Mr. Appleby, the well-known writer on Horticultural subjects: we have grown them at our Nursery, and can fully endorse Mr. Appleby's description of them, which is as follows:—

#### Emperor, 24 to 26 inches long.

A handsome fruit, with black spines; hardy, a good setter. Well suited for Winter culture.

#### Queen, 28 to 30 inches long.

A fine well-shaped fruit, with black spines; a free bearer, good setter. Suitable for Exhibition.

#### Conqueror, 28 inches long.

Handsome in shape, with white spines; a good bearer. Fit for Exhibition, very excellent in quality.

#### Albion, 24 inches long.

A white-spined, well-shaped variety; extra bearer, a good forcer, and bears freely in winter. Qualities excellent, being crisp and well-flavoured.

#### Hailstone.

Blunt white spines in the form of hailstones; a free bearer; handsome and curious.

#### Hamilton's Improved Black Spine.

A well-known excellent variety.

The above Collection for 3s. 6d.

### CARTER'S CHAMPION CUCUMBER.

The best winter variety ..... 1s. per packet.

### LYNCH'S STAR OF THE WEST CUCUMBER.

The best variety for general use..... 1s. per packet.

### NEW HARDY RIDGE MELON,

"Achapesnorricher."

A handsome green-fleshed variety from the Ionian Islands. Flavour quite equal to Melons grown in a pit. The seed now offered is saved from fruit grown on a ridge out of doors last year.

Price, per packet, 1s.

### THE TWO BEST MELONS IN CULTIVATION.

#### CARTER'S EXCELSIOR MELON.

The best Green-fleshed variety. Received first Prize at Crystal Palace ..... 1s. per packet.

#### SCARLET GEM MELON.

The best Scarlet-fleshed variety ..... 1s. per packet.

### CARTER'S CHAMPION BROCCOLI.

The following is an extract from the 'Gardener's Chronicle' of May 28th, 1859:—

Messrs. Carter and Co. have sent us specimens of a new Broccoli with the following memorandum:—"This Broccoli has been proved side by side with the Wilcox late white, Ward's late white, Reading Giant late white, Dwarf Danish, and other approved late kinds, and has shown itself superior to all of them. The Wilcox late white are finished cutting more than a fortnight since; this variety is just coming in, and fine heads will be cut for the next ten days."

*The heads forwarded to us were of the finest possible quality, very large, not in the least coarse, white rather than cream-coloured, and proved when cooked to be wholly free from the strong taste which spoils so many Broccolis.*

Stock of seed very limited; price, per packet, 1s.

## KITCHEN-GARDEN SEEDS, ETC.

In submitting (annexed) to the notice of our Customers and the Public generally our Twenty-seventh Annual List of Vegetable Seeds, we beg leave respectfully to announce that it has been subjected to a most careful revision; all sorts in any way questionable have been expunged, several novelties of merit have been added, and kinds most to be recommended are printed in **black letters**. As a heading to each kind of Vegetable, we have made a few general observations, which we trust may be found useful; for further information respecting cultivation, &c., reference may be made to the Calendar of Operations, commencing at page 73. The *quality* of our Seeds we are confident *cannot be surpassed*, as they are *genuine* and of the best growth. The harvest has been unusually good, and some articles are consequently cheaper than last year.

A  $\frac{1}{2}$  lb. may be had at the same rate as a lb.;  $\frac{1}{4}$  an oz. at the same rate as an oz.; a *pint* at the same rate as a *qt.*; and a  $\frac{1}{2}$  bushel at the same rate as a bushel.

### ARTICHOKE.

Propagate by seed when plants are scarce; to be sown early in April: but the *quickest* method is by *plants* either in October or March (see page 69): the ground should be deeply trenched and well manured.

	s. d.		s. d.
Green .....	per oz. 1 0	Purple .....	per oz. 1 0

### ASPARAGUS.

Sow the seed in drills by the end of March, and at one year old the roots will be fit to transplant into prepared beds, which should be liberally manured and *salted*. One-, two-, and three-year old *plants* may be had (see page 69).

Giant .....	per lb. 2 0	Large early Batavian .....	per oz. 6
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### BEANS.

Plant Mazagan and Earliest Dwarf Fan in November in strong ground, commence again at the end of February, and in succession until the beginning of June.

Earliest Dwarf Fan .....	per qt. 8	Johnson's Wonderful .....	per qt. 8
Early Mazagan .....	" 6	New Emperor .....	" 8
— long-pod .....	" 6	Largest Windsor .....	" 1 0
Green Nonpareil .....	" 8	Taylor's do. ....	" 1 0
Beck's new Dwarf Green Gem .....	" 2 0	Green do., fine .....	" 1 0

### BEEF.

Sow Spinach Beets by the middle of April in good ground. Red Beets for the main crops the last week in April or the first in May: all the varieties will be much improved by the application of *saline* manure in a liquid state; trench the ground deeply; and if dung is added, let it be at the bottom of the trenches.

Carter's St. Osyth .....	per pkt. 1 0	Small selected blood-red .....	per oz. 6
New Pine-Apple Short-top .....	per oz. 9	White .....	" 4
New German .....	" 6	Garnishing, in variety .....	per pkt. 3
Bailey's blood-red .....	" 1 0	Nutting's selected dwarf red .....	" 1 0
Silver or Spinach Beet .....	" 6	Perpetual Spinach .....	" 6

### BORECOLE OR KAIL.

Sow in March for early, and in April for main crops.

Dwarf green curled Scotch .....	per oz. 6	Jerusalem .....	per oz. 9
Tall do. do. do. ....	" 6	Knoll .....	" 6
Asparagus (true) .....	" 1 0	New feathered Scotch .....	" 6
Buda .....	" 1 0	New heading .....	" 9
Delaware .....	" 6	Variegated .....	" 6
Cottager's (true) .....	" 1 0	Melville's garnishing .....	per pkt. 1 0

### BROCCOLI.

Most of the sorts should be sown about the first week in April, for late Spring use; sow the late sorts in the middle of May; sow Walcheren in May and August, and transplant into richly-manured ground.

Carter's Champion .....	per pkt. 1 0	Chappell's cream or sulphur .....	per oz. 1 0
Early Cape, purple .....	per oz. 1 6	Conning's Perfection .....	per pkt. 1 0
— Cape, white .....	per pkt. 1 0	Dalmeny white .....	" 1 0
Dancer's late pink Cape .....	per oz. 1 6	Dilcock's Bride .....	per oz. 1 0
Early Grange's .....	per pkt. 1 0	Dwarf Russian or Siberian .....	" 1 0
— Sprouting .....	per oz. 1 0	Elletson's gigantic .....	" 1 6
Early Walcheren .....	" 1 6	Large Spring white or Cornish .....	" 1 0
— white Malta .....	" 1 0	Late close-headed purple .....	" 1 0
Adams's early white .....	" 1 0	— white .....	" 1 0









**MUSTARD.**

The same as the curled Cress.

	s. d.		s. d.
Brown .....per pint	1 6	White .....per qt.	1 6

**ONION.**

Sow the main crops in March and April, and about the second week in August to stand through the Winter.

Blood-red .....per oz.	0 9	Reading .....per oz.	0 9
Danver's Yellow .....	1 0	Silver-skin .....	0 9
Deptford .....	0 6	Spanish brown .....	0 9
Globe .....	0 9	— white .....	0 9
— new white .....	0 9	Strasburg .....	0 6
James's keeping .....	0 9	Tripoli, large flat .....	0 9
Lisbon .....	0 6	—, round .....	0 9
New Giant Madeira .....	1 0	Very early Nocera .....	1 0
Pickling .....	0 9	Welsh .....	0 6
Portugal, brown .....	0 9	Pear-shaped .....	0 6
— white .....	0 9		
2 oz. of each of the 6 finest sorts .....	7 6	1 oz. of each of the 6 finest sorts .....	4 0

**ORACH OR FRENCH SPINACH.**

Sow for succession in March and April.

Red.....per oz.	0 6	Yellow .....per oz.	0 6
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**PARSLEY.**

Sow in drills from the end of February to the end of May.

Dunnett's garnishing .....per oz.	0 6	Myatt's garnishing .....per oz.	0 6
Large-rooted Hamburg .....	0 3	New matchless winter .....	0 6
Extra curled .....	0 3		

**PARSNIP.**

Sow early in March in deep rich soil, and thin early.

Best large .....per oz.	0 4	Guernsey .....per oz.	0 4
Fine selected .....	0 6	Hollow-crowned .....	0 4
Sutton's Student.....per pkt.	1 0	New Parsnip Chervil .....per pkt. 6d. & 1 0	

**PEAS.**

Sow Carter's Earliest, Sangster's No. 1, and Dunnett's First Early in January.. Emperor, Bishop's long pod, Glory and Perfection in February, and the later sorts twice a month to the end of May; two sowings in June of earlier sorts for a late crop, and two early sorts about the third week in November. Carter's Victoria, Ne Plus Ultra, and King of the Marrows are unrivalled for flavour and general excellence.

**Earliest Varieties.**

Carter's Earliest .....3 ft. per qt.	1 0	Dunnett's first Early .....2½ ft. per qt.	1 0
Daniel O'Rourke .....2½ ft. "	1 0	Sangster's No. 1 .....2½ ft. "	1 0
Dillstone's Early.....3 ft. "	1 6	Toni Thumb .....	1 6

**Early and Second Early Varieties.**

Auvergne .....4 ft. per qt.	1 0	Early Frame .....3 ft. per qt.	0 9
Bishop's long-podded .....1½ ft. "	0 9	Harrison's Glory .....3 ft. "	1 0
Blue Eclipse .....2 ft. "	0 9	Harrison's Perfection .....3 ft. "	1 0
Denyer's Prolific .....5 ft. "	1 0	Prince Albert .....2½ ft. "	0 9
Dickson's Favourite .....4 ft. "	1 0	Warner's Emperor .....3 ft. "	0 9
Beck's Gem .....1 ft. "	1 6	Excelsior Marrow .....4 ft. "	1 0

**Early Wrinkled Varieties.**

Alliance or Eugenie.....3 ft. per qt.	1 6	Champion of England.....4 ft. per qt.	1 0
Climax or Napoleon .....3 ft. "	1 6	Fairbeard's Nonpareil .....3 ft. "	1 6
Sea-green, new.....		per qt. 2s. 6d.	

**Middle and Late Varieties.**

Beck's Prize-taker .....4 ft. per qt.	1 0	Matchless green Marrow .....5 ft. per qt.	0 8
Bedman's Imperial.....2½ ft. "	0 9	Noble's green .....4 ft. "	1 0
Blue Prussian .....3 ft. "	0 8	Royal Victoria .....6 ft. "	0 9
Dwarf green Marrow .....4 ft. "	0 8	Scimitar .....3 ft. "	0 9
— white Marrow .....4 ft. "	0 8	Sugar (eatable pods) .....6 ft. "	1 6
Fairbeard's Surprise .....4 ft. "	1 0	Flack's dwarf Victory .....3 ft. "	0 9
Glory of England .....6 ft. "	1 4	Woodford's green .....2½ ft. "	1 0

## PEAS (continued).

### Late Wrinkled Varieties.

	s.	d.		s.	d.
British Queen.....6 ft. per qt.	1	6	Lord Raglan.....3 ft. per qt.	2	0
Carter's Victoria.....6 ft. "	2	0	No Plus Ultra.....6 ft. "	1	6
Hair's dwarf Mammoth.....2½ ft. "	2	0	Strathmore Hero....." "	1	6
King of the Marrows.....6 ft. "	2	0	Ward's incomparable.....6 ft. "	1	6
Knight's dwarf green.....3 ft. "	1	6	Veitch's Perfection.....4 ft. "	2	6
Knight's dwarf white.....3 ft. "	1	6	Champion of Scotland.....6 ft. "	1	6
2 qts. of each of 10 best sorts for succession.....	17	6	2 qts. of each of 6 best dwarfs for succession.....	12	0
1 qt. do. 10 do. do. ....	9	0	1 qt. do. 6 do. do. ....	6	6
1 pt. do. 10 do. do. ....	5	0	1 pt. do. 6 do. do. ....	3	6

## POMPKIN.

Sow in heat in April, and transplant in May.

Large yellow.....per pa.	3	Mammoth.....per pa.	3
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## POTATO SEED (for exportation).

Sow in pans in heat in April, and plant out in May.

Early.....per oz.	1	6	Late.....per oz.	1	6
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## RADISH.

Sow on a moderate hot-bed in January, February and March, and twice a month in the open borders; a sowing in a frame on a warm border in October is of great use. Watering through the summer should be done early in the morning, when the sun shines hotly upon them.

Black Spanish .....	per oz.	3	Early scarlet .....	per qt.	2	6	
Early short-top.....	per qt.	2	6	Turnip, mixed .....	"	2	6
Long frame .....	"	2	6	—, red .....	"	2	6
— salmon.....	"	2	6	—, white .....	"	2	6
New China rose-coloured .....	per oz.	6	White Naples .....	"	3	0	
Scarlet olive-shaped, fine .....	per qt.	3	0	Wood's new frame .....	"	2	6

## RAMPION.

Sow in May and June.

Per packet.....	3
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## RHUBARB.

Sow in heat in March, and plant out in May in a deep rich soil.

New Emperor.....per pa.	6	Royal Albert.....per pa.	6
Mixed....."	6	Victoria....."	6

## SALSIFY.

Sow in April in deep rich soil, and thin early.

Per ounce.....	9
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## SCORZONERA.

The same treatment as Salsify.

Per ounce.....	9	New Russian.....per oz.	1	0
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## SEA KAIL.

Sow in beds, the end of March or beginning of April (for roots, see page 69).

Per ounce.....	6
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**RUSSIAN MATS (large size).**

Extra large (very scarce) .....	per doz.	30 0
St. Petersburg, best quality .....	"	18 0

**TOBACCO PAPER.**

Per lb. ....	1 6
TOBACCO for fumigating (rough Shag) .....	per lb. 3 6

**CUBA BASS.**

Best quality, per lb. ....	2 6
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**Brown's Floral Shading (in pieces of 20 yards).**

No. 1 quality, 4s.	No. 2 quality, 4s. 3d.	No. 3 quality, 7s.
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**Garden Netting (in pieces 10 yards long, 55 inches wide).**

No. 1, 4s. 2d.	No. 2, 5s.	No. 3, 6s. 8d.
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**Frigi Domo and Shaw's Tiffany.****TANNED NETTING.**

Each mesh, 2 yards wide, per yard run .....	0 2
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*This is a very cheap article.***GARDEN IMPLEMENTS.**

Manufactured by Messrs. Saynor and Cooke, of Sheffield.

Bright Garden Hammers, each 1s. 6d. and 2s.  
 Warranted Garden Hedge Shears, each 4s., 4s. 6d., and 5s. 6d.  
 Cast Steel Blued Ladies' Trowels, each 2s. 3d.  
 Cast Steel Dutch Hoes, each 1s. 3d., 1s. 6d., and 1s. 9d.  
 Ladies' Garden Shears, with polished handles, 3s. 6d. and 4s. 6d.  
 Best Warranted Garden Rakes, per tooth 2d.  
 Warranted Patent Garden Scythes, solid steel points, each 4s., 4s. 6d., 5s., and 5s. 6d.  
 Grass Border Shears, handles 3 feet long, per pair 7s. 6d.  
 Stag Pruning Knives with steel caps, in great variety, with straight and crooked blades.  
 Ivory Budding Knives, in great variety, with straight and reverse points.

**BEST GARDEN SYRINGES.**

Ball Valve.....	each	18s.
Ladies' small size.....	"	10s.
Knuckle-jointed .....	"	26s.
Read's Patent .....	"	21s. and 30s.

**COMMON GARDEN SYRINGES.**

Brass Valve with rose and jet .....	each	8s.
Ditto, smaller size .....	"	6s. 6d.
Brass Syringe with two roses and jet .....	"	7s. 6d.
Brass Ladies' with rose and jet.....	"	4s. 6d.
Ditto, ditto, smaller size .....	"	4s.

**ROOTS AND PLANTS.****ARTICHOKES.**

Crown .....	s. d.		Jerusalem .....	s. d.
per doz.	5 0		per peck	2 0

**ASPARAGUS.**

2 years old .....	per 100	4 0		3 years old .....	per 100	6 0
Extra large, for forcing, per 100 8s.						

**CHIVES.**

Per bundle .....	0 6
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**GARLIC.**

Per lb. ....	1 0
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**MUSHROOM SPAWN.**

Best quality .....	per bush.	5 0
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**UNDER-GROUND ONIONS.**

Per 14 lbs. ....	6 0		Per lb. ....	0 6
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**POTATOES (selected stock, for planting).**

Early Handsworth.....	per peck	4 0	Birmingham Prizetaker ...	per peck	3 0
Albion Ashleaf .....	per bush.	14 0	Flourball .....	per bush.	9 0
Ashleaf Kidney .....	"	12 0	Forty-fold .....	"	9 0
Fluke do. ....	"	7 6	Early Frame .....	"	10 0
Lapstone do. ....	"	8 6	Soden's Early Oxford.....	"	10 0
Walnut-leaf do. ....	"	12 0	Shaw .....	"	7 6
White-blossom do. ....	"	14 0	York Regents .....	"	8 6
Red Ashleaf do. ....	"	14 0	Pheasant's Eye .....	per peck	2 6
Delmahoy, per bush. 8s.					

**POT MARJORAM.**

Per bundle .....	0 6
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**RHUBARB ROOTS (extra strong).**

Linneus.....	each	0 8	Royal Albert .....	each	0 8
New Emperor .....	"	0 8	Victoria .....	"	0 8
Baldry's Scarlet Defiance, per root 1s. 6d.					

**SAGE.**

Per bundle .....	0 6
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**SEA KAIL.**

Large .....	per 100	8 0		Extra large, for forcing.....	per 100	12 0
Extra strong, per 100, 15s.						

**SHALLOTS.**

Per lb. ....	1 0
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**TARRAGON.**

Per bundle .....	0 6
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**THYME, LEMON.**

Per bundle .....	0 6
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**WINTER SAVORY.**

Per bundle .....	0 6
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## AGRICULTURAL SEEDS.

We again respectfully invite the attention of our Customers and the Public generally to this Branch of our Business, to which we are devoting the most careful attention : all the seeds are unadulterated, and of the present season's harvest, and being our own growth, we can confidently recommend the stocks, both for purity and as being carefully selected. The Turnips and Mangels are saved from large transplanted Bulbs.

The Grass Seeds contain the best sorts only, carefully mixed by ourselves, and thoroughly cleansed.

The past Autumn has been particularly favourable for the harvesting of Farm seeds, and consequently the seeds are of superior quality, and the prices are much lower than usual.

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Our roots of Turnips, Mangels, Carrots, &c., exhibited at the Smithfield Club Show in December last, were very favourably spoken of in the report of the Cattle Show in the various London Newspapers.

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*Special quotations of prices at a reduced rate will be given where large quantities are required, on application.*

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### CARTER'S IMPROVED ORANGE GLOBE MANGEL-WURZEL.

Saved from large transplanted roots of good shape and a fine dark orange colour.

Can be recommended as the best Mangel in cultivation.

Price per lb. 8d.

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### CARTER'S LONDON SWEDE TURNIP.

An improvement on Skirving's Swede, the result of careful selection ; is more perfect in shape, and not so much inclined to run to neck. *Our roots exhibited at the Cattle Show were very much admired.*

Price per lb. 1s.





## GRASS SEEDS.

We had the pleasure of supplying the Royal Horticultural Society with Lawn Grass Seed, for laying down the New Gardens at Kensington, and the following is a copy of a letter lately received from Mr. Eyles, the Superintendent:—

"Royal Horticultural Society, South Kensington, W.  
4th December, 1861.

"Gentlemen,

"The Grass and Clover Seed you supplied us with, for the gardens here, has answered the purpose well, and the Lawn looks as green as the part that was turfed, but, of course, not quite so solidly grown together.

"Messrs. Carter & Co."

"I am, Gentlemen, yours truly,  
"GEO. EYLES."

### GRASS SEEDS.

We devote special attention to our Grass Seeds, which are thoroughly cleaned and mixed by ourselves, and we are confident cannot be surpassed.

#### RYE GRASS ( $2\frac{1}{2}$ bush. to 3 bush. to the acre).

Rye Grass may be purchased at a very low price per bushel; but the purchaser, in estimating its value, must take into consideration the weight per bushel. Our Rye Grasses are heavy seed and fine samples.

Italian, English seed .....	per bush.	Perennial .....	per bush.
Italian, Imported seed .....	"	Pacey's Perennial .....	"
Annual .....	"	Dickenson's Perennial .....	"

#### MIXED GRASS SEEDS FOR PERMANENT PASTURE.

We recommend a proportionate mixture of the undermentioned according to soil, averaging about 2 bushels light seed and 12 heavy seed (Clovers) to the acre. Price per acre..... 24s. to 32s.

Cocksfoot.	Festuca ovina.	Poa trivialis.	Trefoil.
Hard Fescue.	Meadow Foxtail.	Sweet Vernal.	White Clover.
Festuca elatior.	Tall Oat Grass.	Italian Rye Grass.	Cow Grass.
" pratensis.	Poa nemoralis.	Perennial Rye Grass.	
" rubra.	" pratensis.		

#### SUNDRY MIXED GRASS SEEDS.

Grass Seed for Park Lawns .....	per bush.	16 0
Grass Seed for renovating old Grass Lands .....	"	10 0
Grass Seed for Chalky Uplands and Sheep Walks .....	"	12 0
Grass Seed for Wet Lands .....	"	10 0
Mixed Clovers for permanent pasture .....	per lb.	1 0

#### GRASS SEED FOR FINE LAWNS.

This is really a splendid mixture, containing proportionate quantities of the following:—

Crested Dog's tail.	Meadow Fescue.	Poa pratensis.
Hard Fescue.	Festuca tenuifolia.	White Clover.
Sheep's Fescue.	Poa nemoralis.	Suckling.

Price per bushel, 18s .....per lb. 1s.

## SUNDRIES.

The prices of the annexed will be forwarded on application.

TRIFOLIUM INCARNATUM .....24 lbs. to the acre.

#### CLOVER.

White Dutch.	Perennial or Cow Grass.
Red do.	Alsike hybrid.
Suckling.	Trefoil.

#### SAINFOLN (4 bushels to 5 bushels the acre).

Common.	Giant.
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## CARTER'S COLLECTIONS OF GARDEN SEEDS FOR 1862.

Being complete assortments of Vegetable Seeds for one year's supply.

Containing only the most approved and choice sorts, in quantities to suit large and small gardens.

No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
10s. 6d.	20s.	40s.	60s.	100s.

These Collections are always kept ready, and can be supplied at a moment's notice.

## SEEDS FOR EXPORTATION.

J. C. & Co. being large Exporters to the East Indies, Australia, Canada, &c., their experience can be depended on to select seeds suitable for any climate, and to pack them so as to ensure a safe transit.

## PART II.

### CALENDAR OF OPERATIONS.

#### JANUARY.

##### Kitchen Garden.

The operations of this month will be much influenced by the prevailing weather. Should the ground be favourable for working, every opportunity should be taken advantage of to trench up all vacant plots of ground, throwing it up as roughly as possible, to allow the frosts to penetrate thoroughly: the action of severe frosts upon soils, particularly such as are strongly adhesive, is equal to a good manuring; and the diligent gardener, knowing that the success of his crops depends much upon the proper preparation of the soil, will never neglect this simple but very important operation. Seeds sown when the soil is in a sour, ungenial state, may germinate, but will rarely flourish; and this often causes the Seedsman to be unjustly blamed. The beds for Parsnips, Carrots, Early Peas, and Onions, if not already trenched up, as they ought to have been in November, should be done immediately, and should afterwards be lightly forked over on dry frosty mornings with a steel digging-fork; this constant moving of the soil tends to dissipate moisture, and brings it sooner into a fit state for the reception of seeds and plants. We call attention to these preliminary remarks, because they will be found useful in other months.

##### General Directions.

Towards the end of the month, get in, if possible, a sowing of *Early Peas*. *Carter's Earliest* and *Sangster's No. 1* are suitable sorts; sow also *Dwarf Fan* and *Mazagan Beans*. If required thus early, sow *Wood's New Frame Radish* in a frame on a gentle bottom heat; see that a good supply of dung and leaves are in the course of preparation by frequent turnings for use next month. Look to the successional supplies of *Sea Kale* and *Rhubarb*: fresh patches may be covered in the open ground; but a less troublesome practice, when there is convenience, is to take up strong roots and place them in the Mushroom House, where also Endive and Chicory may be placed for blanching for salads: keep up a supply of Mustard and Cress for the same purpose, by sowing once a week in boxes to be placed in a vinery at work, or in a frame with a gentle heat. If the early Peas and Beans sown in November begin to peep through, cover them immediately with half-rotted leaves in a dry state from the sheds, where a store of such things should always be kept for emergencies. A few Early Frame or Ash-leaf Potatoes, for planting in pits and frames next month, may be laid out to sprout in any odd place where there is a gentle heat, as they require no mould, but only to be laid out on the floor, or in a shallow box, which is better than planting at once, as it saves trouble and ensures a good plant; wheel out manures and composts on dry frosty mornings, and give the beds of Asparagus a liberal dressing of rich well-rotted manure, which should be spread out evenly and left for a time. Give plenty of air to *Cauliflowers* in frames and under handlights, remove decayed leaves; and if slugs are troublesome, stir the surface and dress it with soot and lime.

##### Fruit Garden.

Pruning, dressing, and nailing of all the hardier fruits, such as Apricots, Pears, Plums and Cherries, must be carried on without delay in all favourable weather. Where birds are troublesome, the pruning of Currant and Gooseberry bushes may be deferred for a time; but the present is a good season for the removal of two or three inches of the soil around their stems, supplying its place with some fresh compost, previous to which, if some quicklime is thrown around the stems, it will very much assist the object in view, viz. to keep down the gooseberry caterpillar. See that newly-planted fruit trees are secured from the effects of high winds; and if not already mulched with rotten manure, let it be done immediately.

##### Flower Garden.

Where there is the convenience of a vinery at work, commence about the last week in the month to pot off from the stove pots the plants intended for bedding out, beginning with Scarlet Geraniums and other free-rooting varieties, leaving Verbenas and other more tender bedders until next month. Plants reserved in the Autumn for the purpose of furnishing Spring cuttings, such as Heliotropes, Fuchsias, Lantanas, Cupheas, Verbenas, and Lobelias, should also be brought into heat to start; see also that a sufficient quantity of fresh dung and leaves are getting ready for a bed for striking these cuttings. Have some composts under cover ready for the earliest sowing of Annuals next month: in the out-door department attend to neatness in the grass and the borders along the principal walks; trench up all vacant beds, adding some nice decayed leaf mould where necessary; thin out shrubberies, and, weather permitting, commence digging the same: if the Hyacinths in beds are pushing through, it is a good plan to cover the beds with dry rotten leaves. Bear in mind, that after this month every week will bring an increase of necessary operations; it is well, therefore, to be in advance.

##### Conservatory.

The gay appearance usually required in this structure at this season will very much depend upon what conveniences there are for supplying it: the forcing-house, the stove and pits, will all be drawn upon; and, for the welfare of such plants as have been tenderly reared, the temperature must be kept at a range of from 45° to 50°, and, although air should be given daily, if possible, cold draughts of cutting winds must be avoided: water in the forenoon, and keep all percolating water wiped up so as to have the walks dry and comfortable. The different varieties of Dutch Bulbs will here form a grand feature for the next three months, and will keep up a very gay and attractive appearance: it is surprising that plants so readily procured and easily cultivated are not generally used. The first batch from the *forcing-house* will now be expanding, and should be removed here before the flowers open, as they will thus last longer and flower finer than when forced to expand in a higher temperature; Camellias, both in pots and borders, will be coming into bloom, and must not be allowed to wait for water.

##### Forcing House.

This structure should now be in full action, and will be for some time the most useful one. If not already done, bring in a batch of American plants, Rhododendrons, Kalnias, Azaleas, Indian Azaleas, Roses, with many others; introduce a fresh batch of Dutch Bulbs for succession, also a few Tree and Neapolitan Violets: give air when possible, and keep the atmosphere moist and sweet; the temperature should not fall below 50° at night, and should rise 2° or 3° a week as the sun and light increase.

### Stove.

Plants that have done blooming and require rest must have less water, and be removed to the coolest place; shift or top dress, and cut back, if necessary, all that are starting into growth; and do not give them much water at first; cut back creepers required to bloom early; put a part of the stock of *Gesneria zebriua* to work, also a few *Achimenes*, *Gloxinias*, and *Gesneras*, if not already done.

### Orchid House.

As many of these will now be starting into growth, the temperature and the humidity of the atmosphere may be slightly increased, but not too rapidly, as many of the plants are still dormant, and must not be hastily excited: when growth commences, see to the necessary shifting or surfacing, as may be necessary, using the composts in a very rough state, with the addition of lumps of charcoal and sandstone.

### Greenhouse.

Hardwooded plants are most of them still in a dormant state, and must neither be overwatered nor subjected to more fire heat than is necessary to exclude frost. Such plants as *Acacias*, *Correas*, *Winter-flowering Heaths*, &c. must be removed to the conservatory as they show for bloom, when they may have more water and a more growing atmosphere: watch the state of the roots towards the end of the month; and if they are on the move, make immediate preparation for a good shift early next month, or an examination of the drainage and surface-dressing where shifting is no longer desirable; for it is bad economy to continue shifting the generality of hard-wooded plants beyond a certain reasonable and moveable size; it is far better to bring forward a stock of nice young plants, as being more interesting and affording room for a greater variety in display. Continue the shifting of *Pelargoniums* as they become ready: the most forward will now be ready for their blooming-pots; thin the branches out, and keep them nicely trained, give them plenty of stage room, and let them be often turned about. A general shift of all the strongest *Calceolarias* will be necessary towards the end of the month: go over the whole of the stock, remove decayed leaves, stir the surface, and pay particular attention to fumigation; for if insects are not kept under, all other cares are useless, both for these and *Cinerarias*; and their attacks are often so insidious, that the mischief is done before it begins to show itself: fumigation, therefore, should be a part of the system, and be done about every three weeks. *Cinerarias*, if required large, should now have another shift; such as are throwing up for bloom may have a warmer temperature to encourage them to open freely; look over the stock for succession, shift such as require it, and pot off more seedlings; remove old plants of choice *Fuchsias* into heat to furnish cuttings for Autumn blooming.

### Forcing Fruit Houses.—Pineries.

Examine well into the state of the bottom heat in which the fruiting plants are growing; this must range from 80° to 85°; therefore, if it is declining, let it be renewed with some fresh material, but do not disturb the pots; a moist atmosphere is indispensable, which may be increased or lessened according to external atmospheric conditions, more being required in bright sunny weather than in dull cloudy weather; give air whenever possible: in syringing and watering be very careful not to wet the embryo fruit, any moisture on which would be fatal: keep succession plants dormant at present; but towards the end of the month a slight increase of temperature may be ventured upon, to prepare some of the best for shifting next month.

### Vineries.

When the vines that were started in November are well broken and advancing into bloom, syringing overhead must be discontinued, and atmospheric moisture liberally supplied by evaporation; stop the shoots at one joint from the fruit as soon as it can be perceived, and at the same time remove entirely all superfluous shoots: look to the state of the coverings on the outside borders; if fermenting materials are used, it will be all right; but if not, something must be done to throw off the cold rains and snow, and more particularly to exclude the frost about the part where the stems enter the house, as we have seen a crop ruined by the main stem being exposed to frost when the buds were started: previous to starting the house for succession, let the walls be well washed over with a mixture of lime and sulphur; the stems of the vines should also be dressed with a mixture of lime, sulphur, soft-soap, and soot, mixed with water to the consistency of paint, and applied warm.

### Peach House.

Increase the heat to such as are in bloom or just setting, and commence disbudding; finish pruning and dressing the trees in the houses about to be started; commence the application of fire heat in a very gradual manner; be careful to syringe freely and often before the bloom expands, and let the roots have a good soaking with tepid water. Figs may now be started; give the roots plenty of water, and syringe the plants twice a day, shutting up early.

### Pits and Frames.

Keep up a brisk bottom heat, at a range of 75°, to Cucumbers in fruit; maintain also a moist atmosphere, but admit air as often as possible; pot off seedling Cucumbers, and sow more seed; sow also seed of an early Melon (*Carter's Excelsior*) for first crop: start another batch of Strawberries in a gentle bottom heat, with plenty of air when possible; make up Mushroom beds, and spawn them when the heat decreases to 80°. Let us here add, as a general rule applicable to every month, and of great importance to be remembered, always in watering at the roots, or syringing overhead, let the water be applied at the same temperature as the average of that in which the plants are growing.

## FEBRUARY.

### Kitchen Garden.

Regard being paid to our previous directions for the preparation of the soil, let no time be lost, when the weather is favourable, in getting in crops. Early in the month make a sowing of *Round Spinach*, *Early Short Top*, and *Scarlet Radish*; also *Bath Cos Lettuce* on a warm border; let these beds be slightly covered with dry brake, fasten it down, and remove when the seeds are up: sow *Carter's Fine Selected* and *Hollow-crowned Parsnips*; and make the first sowing of *Brussels Sprouts*, also of *Carter's Early* and *Matchless Cabbage*, also of *Dwarf Utn* and *Drunhead Savoy*, and a small sowing of improved *Red Dutch Cabbage*.



Peas may be sown twice this month—the first of early sorts, the second of second early sorts (*vide* the Kitchen part of the Catalogue, where all the best varieties will be found in **black type**, and may be safely taken as a guide); the *early wrinkled varieties* are very superior, as also are *Dickson's Favourite* and *Harrison's Perfection*: make a good sowing of *Early long-pod Beans*; sow in frames, on a gentle bottom heat, *Short French* and *Early Horn Carrot*, also *Wood's Early Frame Radish* for succession: towards the end of the month make a sowing in shallow pans of *Cauliflowers*, *Walcheren Broccoli*, and *Snow's Winter White Broccoli*, also *New Giant White Cos Lettuce* and *Celery*; plant out a good bed of Cabbages from the store beds, and also a bed of Red Dutch Cabbage; plant Potatoes in frames with the sets laid out last month to sprout, and lay out for sprouting as many sets as will be required for planting early out of doors; they will be ready for use a fortnight before those planted in the ordinary way: keep vacant plots of ground moved about in frosty weather.

### Fruit Garden.

Proceed with the pruning, dressing, and nailing in of Wall-fruit trees of all sorts, leaving Peaches and Nectarines until the last; have the necessary means at hand to apply as protection to Apricots, Peaches, and Nectarines, as soon as the buds begin to swell out; fill up, prune, and tie Raspberries, and give them a liberal dressing of rotten manure; prune Filberts when the female bloom shows; afterwards manure and dig the ground, removing all suckers.

### Flower Garden.

Preparations for summer display must have constant attention: sow some of the most showy Hardy Annuals in pots, and place them in a frame on gentle bottom heat; these will flower very early: a few may also be sown on a warm border, to transplant into the flower borders when they are dug up next month: dress the beds or patches of Annuals which have been standing through the winter with soot and ashes to keep away snails; make up a good dung bed early in the month, and commence striking the cuttings of bedding-plants as soon as they are ready. When the first-potted bedding-plants are well rooted, remove them to a cooler temperature and supply their places with freshly-potted ones from the stores; bring forward the dry roots of choice Dahlias into heat, to furnish cuttings: the tall varieties of *Lobelias* should be put into heat; and when started into growth, part and pot them singly into four-inch pots, and harden off when well rooted; shift *Carnations* and *Picotees* into their blooming-pots at the end of the month; protect choice *Tulips* and *Hyacinths*; fumigate *Auriculas*, and top-dress them; let them have plenty of air and protection from frost and damp: commence the pruning of hardy *Roses*, also of climbing *Roses* on walls and trellises; where crowded, remove exhausted wood and lay in young stuff. Dress over *Scillas* and choice *Crocus* with soot and ashes; also lay traps for mice, which are very destructive to *Crocus* roots. Sow some pots or pans of German Ten-week Stocks (*vide* page 4 in Catalogue) for early flowering, also a pan of *Delphinium chinense* and *formosum* to flower late in the Autumn. Commence digging up the borders in the rougher parts of the Mixed-Flower Garden; and where the background is formed of shrubs, let them be thinned out, re-arranged, and blanks filled up as may be found necessary; some nice rotten-leaf mould pricked in amongst the choicer sorts will be very beneficial.

### Conservatory.

Every exertion will be necessary to keep up the interest and attraction of this structure, by a strict attention to neatness, and by a frequent re-arrangement of the plants to produce fresh combinations; if the borders are getting hard and stale, let them be pricked over, and a little fresh compost added where needful. Clean the leaves of *Camellias*, *Oranges*, and other coriaceous-leaved plants, with a soft sponge, and syringe with tepid water occasionally before the blooms expand. Apply clear liquid-manure water to the roots once a week; forced plants of *Camellias* and *Indian Azaleas* must be returned into heat to make their growth when their beauty is past. This house will require an occasional fumigation; but it should be a general rule to examine thoroughly all plants which are brought in from the other structures, and to smoke them well in a separate place if at all infested. Amateur Gardeners often do not attach sufficient importance to this simple operation, and consequently do not always meet with the success their industry merits. The admirers of Dutch Bulbs will now be able to appreciate their beauty and the gorgeous display they frequently produce.

### Forcing House.

As the different varieties previously mentioned advance into bloom, let them be removed to the Conservatory, and another batch of all the necessary sorts introduced from the reserve pits: do not forget to take them out of the forcing-house before the blooms expand; they will then continue much longer and carry a finer colour. Such of the *Anaryllids* as are showing for bloom may be placed in this structure, also some large plants of *Salvia splendens*, which will make a gorgeous show if all the earliest flowers are picked off and the back buds forced to start: introduce also some *Azalea sinensis*; they force well and are very fine. Pot plenty of *Tuberose* roots, and place them on a shelf near the glass; and when well broken, thin out the stems and tie up as they advance.

### Stove.

As the most of these will now be emerging from quiescence, both the temperature and the humidity of the atmosphere may be gradually increased; but do not raise too high; at present a range of 50° to 60° is sufficient. Start a few more *Achimenes*, *Gloxinias*, and *Gesneras*, also the new *Tydias* from Ghent; let water be very sparingly supplied until they have fairly started into growth: cuttings of such sorts as are required for keeping up the stock, but more particularly such as will be required for winter blooming, should be got in immediately and placed in a frame on a dung bed with a brisk heat.

### Orchid House.

The principal care here will be to avoid all unnecessary excitement; a temperature ranging from 65° by day to 50° at night will be most suitable. Plants which are making growth, as advised last month, must have the best situations, where their wants can be duly attended to; water them when they require it, and, if possible, keep the atmosphere moister about them: the floors and walls may be sprinkled twice a day to keep up a fresh agreeable atmosphere; but do not at present produce a moist atmosphere by evaporation from a heated surface; hunt up and destroy insects.

### Greenhouse.

Most of the hard-wooded plants are now moving, and will require a general attention to shifting: let the whole of the stock be thoroughly revised; such as are in bloom will at present only require top-dressing; the same will apply to all plants which are become large enough for decorative purposes; but all young plants of various stages, growing forward into specimens, must have a shift, large or small according to the state of the roots: this should be carefully looked to, as indiscriminate shifting to save after-trouble is not skilful gardening; endeavour to keep the plants close for a few days after this operation, and be very careful in watering, until the growth of the plant shows that the roots are active, when more may be given; but at all times extra care in watering is necessary for hard-wooded greenhouse plants: previous to shifting, see that the balls are well saturated; young plants growing into specimens should not be allowed to flower, but kept back. As soon as the Chinese Primroses and Cinerarias, which are now blooming, are removed to the Conservatory, let their places be supplied from the reserve pits, which will thus give room for the shifting and spreading out of the later stock. Calceolarias in particular will require constant shifting and plenty of room: get in cuttings from the Fuchsias put into heat as soon as they can be procured; they cannot be got to work too early. Select a few of the best plants of Scarlet Geraniums, Petunias, Tropæolums, and Verbenas, and give them a liberal shift to bring them forward as Conservatory plants. Continue the training of Pelargoniums, and shift the later stock; put in cuttings for Autumn blooming. Take care to have a frame with gentle bottom heat ready for a sowing of showy Annuals for the Conservatory early next month.

### Forcing Fruit Houses.—Pineries.

Let the temperature be gradually increased as the days lengthen, both in the fruiting-house and also to succession plants; the bottom heat must also be carefully maintained, by whatever means it is produced; keep up a humid atmosphere, and give air whenever possible; water must be gradually withheld from such plants as have swelled their fruit and are beginning to ripen. Succession plants should now be shifted; bring all the largest and forwardest plants to the warmest end of the house or pit, to bring them forward to take the place of those from which the fruit is cut: in the fruiting-house, if the bottom heat is from tan, be very careful that the addition of fresh material, generally made at this shifting, does not increase it too much.

### Vineries.

The berries in the earliest house will now be set, and are therefore ready for the very important operation of thinning, which is one that requires very great care in the manipulation. Be careful not to handle the bunches, nor touch them violently, because bruises, however slight, will disfigure the berries: but we would observe particularly that a very few minutes' draught of cold wind, when the berries are in this tender stage, will rust every bunch it blows upon; and a fortnight after, it will be wondered how it is that the grapes are rusted; never, therefore, at this stage of growth, give air at the front unless it can be thoroughly warmed, and not at the top when the wind is rough and cold. As the process of thinning goes on, let the shoots be carefully trained, and every superfluous one removed. Vines started last month will now be breaking fast; keep up a moist atmosphere, and syringe overhead frequently until the bloom begins to expand.

### Peach House.

Thinning the fruit and disbudding are the principal operations in the earliest house; and this must be done in a very gradual manner, and at intervals: some little skill and practice will be required, as the mind must be carried on in advance of the present state of the tree, and the operation conducted with reference to what it should then be. Peaches are very impatient of the knife; and the great object of disbudding should be to obviate almost entirely the necessity of using it. Green fly is apt to appear at this stage, for which fumigation will be necessary; and if the red spider threaten, smear a little sulphur mixed with thin gum water on the pipes *when cool*; never introduce dry sulphur. Keep up a moist atmosphere both here and in the houses started last month, and syringe the latter freely until they are in bloom, when they should be kept dry for a short time to assist the formation and distribution of pollen: give the trees a smart rap now and then for the same purpose. Cherries may now be started; they succeed best when they can have a little bottom heat and a free circulation of air: keep Figs well watered at the roots, together with a moist atmosphere and frequent syringing. Strawberries which have well set their fruit may be removed to the shelves of a Vinery, near the top, where air is given, and another supply brought into the pits for succession.

### Pits and Frames.

If there is a pit to spare, now is a good time to fill it with good fresh leaves; and plunge it full of Strawberries in pots: they may remain there to fruit, and will come in very useful. Sow more Fulmer's Early Forcing Beans in pots for succession. Continue a brisk heat to Melons and Cucumbers, with a moist but not stagnant atmosphere: keep the bottom heat about 75°; or else the fruit will not swell off: pot off seedling Melons and Cucumbers, and sow more seed of Carter's Champion Cucumber and Exceelsior Melon; sow Tomatoes, Chilies, and Capsicum at the end of the month.

## MARCH.

### Kitchen Garden.

This is a busy month indeed; and every exertion will be necessary. Two sowings of Peas must again be made this month,—the first to consist of the middle and late varieties, and the last of the late wrinkled sorts: Carter's Victoria, No plus Ultra, and King of the Marrows are Peas of unrivalled excellence; the rows are best single; but if not, they must be six feet apart. Sow Johnson's Wonderful, and Taylor's Windsor Beans; get in the main sowing of Parsley, also a good bed of Early Horn and James's Scarlet Carrot. The main crop of Onions should be got in about the middle of the month; consolidate the ground with a wooden roller, and sow in drills seven inches apart for the convenience of thinning. Sow Celery for the main crops early this month, and prick out on a gentle heat those sown last month. Sow Brussels Sprouts, Chou de Milan, Savoy Cabbage, and Borecole for the main crops. Make a small sowing of Snow's Winter and Grange's Broccoli for use in early winter; prick out the Cauliflowers sown last month, and make another small sowing on a warm border.



The first week in the month sow Early Dutch Turnips in a frame on a gentle hot bed, and at the end of the month a good sowing in drills on a border; use plenty of seed, and scatter soot and ashes over the bed. Sow Spinach twice this month, and keep up successional sowings of Radishes and small Saladings; prick out early-sown Lettuce, and sow more seed. Plant beds of Globe Artichokes in soil well trenched and manured, also of Jerusalem Artichokes; they like freshly broken-up ground. Plant beds of Asparagus and Sea Kale, and sow seed for a supply of young plants; also plant Horse-radish in deeply trenched soil with manure at the bottom. Make fresh beds of Thyme, Mint, Tarragon, Sage, and other herbs; seeds of all kinds of herbs should be sown immediately. Sow Bush and Sweet Basil on a gentle heat. Begin early in the month the planting of early Potatoes, particularly the sprouted ones, and by the end of the month let all the main crops be got in; stir up the surface amongst all advancing crops. Plant out Cauliflowers and Cabbages from the Autumn beds, also beds of Tripoli Onion from the August sowing. Sow also a bed very thickly of Silver-skinned and Early Nocera Onion for picklers; the latter is for this purpose the best ever introduced. Trench up vacant ground. Earth up and stake Peas as they advance. Fork over very lightly the Asparagus beds; a few Radishes may be sown on the surface.

### Fruit Garden.

Pruning and nailing should now be all finished off, and protection applied to Peaches, Nectarines, and Apricots. A few branches of Yew or Spruce Fir fastened over the blooms of choice Pears, if they should expand in sharp weather, will be of great service to them. By the end of the month the protection may be partially removed from Figs.

### Flower Garden.

All the Autumn stores of bedding-plants must now be potted off without delay, and the stock continually increased by Spring-struck cuttings. Have some turf-pits in readiness for pricking out, at three inches apart, all the Spring-struck Verbenas: these pits must have a moveable waterproof covering; glass is best, but wooden shutters will do. See that Hardy Annuals sown in pots last month are getting hardened off for planting out. Sow Sweet Peas in pots in a gentle heat, to be hardened off quickly and planted out for early flowering; sow the same in the open border for succession. Prick out German Ten-week Stocks, and sow more seed. A general sowing of Hardy Annuals (*vide* Catalogue) may be made at the end of the month if the borders are ready. Sow also *Lawn grasses* in showery weather. Plant out seedling Pansies; top-dress Pinks and Carnations; stir the soil amongst the Tulip, Hyacinth, and Ranunculus beds, and protect them from snails. When digging the borders of herbaceous plants, reduce the size of all overgrown specimens, and fill up vacancies from the reserve garden. Finish pruning all Roses, manure them well, and replace rotten stakes. Keep grass and gravel well swept and rolled. Plant out bulbs of the beautiful varieties of Gladiolus. Throw up a dung bed the last week, for tender Annuals early next month.

### Conservatory.

There will now be so many plants in bloom from other structures, that it will not be very difficult to make frequent changes in the arrangement of this house, which, besides increasing the interest and attraction, will be of benefit to many of the plants, particularly choice hard-wooded specimens, which ought not to remain long in houses of this description, being often built more for ornament than use. Soft-wooded plants may generally remain until they have passed their best; but at all times avoid overcrowding, and attend especially to keeping the foliage of all plants very clean and healthy. Camellias, Citrons, Oranges, and other permanent plants, being now in active growth, must have an abundant supply of water, and a dose of liquid manure occasionally; overgrown Camellias should be pruned in as soon as the bloom is over. If the wind is very cutting, and tender plants from the Stove or Orchid House are introduced, nail some canvas, Shaw's Tiffany, or Brown's Floral Shading over such of the ventilators as open on the plants.

### Forcing House.

This structure will still be very largely drawn upon for the decoration of the Conservatory and Drawing-room. Bring forward a further supply of Azaleas, Roses, Rhododendrons, also Weigola rosea, Deutzia gracilis, Forsythia viridissima, and Dielytra spectabilis. Continue to bring in Amaryllids as they show for bloom, which they now do pretty freely, and are so ornamental that no place should be without a collection. A good supply of hardy Ferns should be kept in pots, and brought into this house early this month; they form very beautiful objects, and are useful both for the Conservatory and Drawing-room: introduce a few plants of Otahito Orange for the same purpose.

### Stove.

The temperature of this house should now range from 60° by night to 80° by day with solar heat, giving air liberally when it approaches the latter. Shut up early with solar heat, and give a liberal syringing; take care also to keep up a moist atmosphere. The first-started lot of Tyden, Achimenes, Gesneria, and Gloxinia should now be put into their blooming-pots and more started for succession. Pot off the cuttings of Stove plants struck last month; more may still be put in; young specimen plants must be shifted as the pots fill with roots. Keep all advancing stock growing briskly, and give the softer-wooded varieties an occasional dose of liquid manure. Sow Acacia coccinea and Ipomoea limbata elegatissima, both of which are very beautiful.

### Orchid House.

Plants now starting into growth must have attention paid to the roots: such as are ready may be shifted; others will only require to be top-dressed with fresh lumps of peat. Blocks and baskets should be put in order, or renewed if necessary. Insects *must* be hunted out and extirpated. Shade during bright sun, and give air in order to avoid slackening the fire too much.

### Greenhouse.

All the young specimen hard-wooded plants shifted last month should now be making active growth both at root and branch, and must be encouraged by a more liberal supply of water and gentle syringing; stop strong shoots, and train the plants into the desired shape at once; no after-care will do it, if neglected now. Large blooming plants must not be stopped, but encouraged with plenty of water, frequent changes of position, and an abundance of air; but still beware of cutting winds. Epacris which have now done flowering should be well cut back and placed in some rather close structure until they have started, when they may have a shift, if necessary, and the growth gradually hardened.

Soft-wooded Greenhouse plants must now be encouraged to make all the growth possible. Cinerarias will be advancing fast into bloom; do not let them want for water, and be sure to keep down *aphides*. Shift the stock for later blooming. Continue the shifting of *Calceolarias* as they advance; the surplus seedlings may be hardened off for planting on a shady border out of doors. Keep *Cyclamen* at the warmest end of the house. Let *Tropaeola* have a free circulation of air about them. Do not allow the plants of Double Chinese Primrose to perfect too many trusses of flowers, as it weakens them very much, in fact sometimes *kills*; remember also that *drip* and a damp stagnant atmosphere inevitably kill them. Sow seed of *Primula sinensis fimbriata* to bloom in the Autumn, also of Greenhouse seeds generally. Shift any plants of *Pelargonium* which may have been left for late blooming; train out the forward specimens; let them have a dose of liquid manure occasionally, and a free circulation of air; but be careful of fire heat, which is apt to draw the blooms up too fast.

### Forcing Fruit Houses.—Pineries.

The whole of the stock should now be growing, which must be maintained by keeping up a brisk temperature and moist atmosphere. Plants swelling their fruit may have manure water now and then; but when ripening off, give but little water. Continue to bring forward the best successions into the fruiting-house as fast as the fruit is cut; also apply diluted manure water to the whole of the successions in a growing state, and frequently syringe about the lower part of the stems and over the bed: watch the bottom heat, as strong sun often causes it to rise some degrees.

### Vineries.

The progressive thinning of the branches, stopping the shoots and laterals, and training, will be the principal operations in the early houses; particular attention must be paid to the admission of air, avoiding cold draughts, and submitting to a few extra degrees of heat rather than admit cutting easterly winds, so prevalent at this season. Keep up a *moderately* moist atmosphere; be careful to retard the latest houses as long as possible: but when the buds begin to swell, discipline must commence; close the houses with solar heat, syringe well, and apply fire heat when necessary.

### Peach House.

Persevere in thinning both fruit and branches in early houses: as the fruit advances towards the stoning point, be very careful of fire heat; do not overdo it. Maintain a moist atmosphere, and destroy insects; water liberally at the roots, and apply liquid manure once a week. Bring forward a good supply of British Queen Strawberries, also of other sorts for succession; syringe liberally, and give plenty of air. Give Figs and Cherries liquid manure sometimes, and stop the young shoots of Figs at about the fifth joint.

### Pits and Frames.

Make a liberal sowing of Carter's Champion, Lynch's Star of the West, and Cuthill's Improved Cucumbers, also more Melons, of sorts; maintain a brisk growing heat, and change the internal atmosphere as often as possible. Ridge out both Melons and Cucumbers for succession, and keep plenty of dung often turned out for heating purposes.

## A P R I L.

### Kitchen Garden.

Particular attention must be paid early in this month to the sowing of the different varieties of Broccoli, Cottager's Kail, Broccole, Cabbage, Brussels Sprouts, Cape Broccoli, and Cauliflower; those which may be safely depended on as the best sorts will be found in *antique* in the Catalogue. Let the beds have an open but sheltered situation, and be placed all together, so that netting may be stretched over to keep off birds. Sow Bath Cos, New Giant Cos, and Paris Cos Lettuces for transplanting, and the different varieties of Cabbage and Silesian Lettuce in drills to be thinned out and left at the proper distances. Sow Musselburg Leek, Salsify, and Scorzonera, also Sion House, Newington Wonder, and Light Dun Dwarf French Beans on a warm border the last week; for earlier purposes sow on heat, and harden them off to transplant under hand-glasses. Make successional sowings of late Wrinkled Peas, and let the ground be well manured and deeply trenched. Sow more Broad Beans, also Turnip Radishes about every ten days, and small Salad twice a week. Sow more of Early Dutch Turnip; and when the soil is in good condition, get in the main sowing of Long Surrey, selected Altringham, and Intermediate Carrot; sow in drills. Small selected and New Pine-apple Short-top Red Beet may be sown the last week in the month, at which time also the first sowing of Scarlet Runners should be got in. Plant out Cauliflowers, Cabbages, and Lettuces for succession, attend particularly to the pricking out of Celery from the early sowings, and sow more seed in the open ground for late crops. Prick out Bush and Sweet Basil, and sow more seed under a hand-glass on a warm border. Remove the hand-glasses from Cauliflowers, earth them up in a basin-like form, and give them plenty of water and liquid manure. Tie up Lettuces for blanching, and keep the hoe constantly at work amongst all advancing crops.

### Fruit Garden.

The operations here will very much depend on the weather: if the season is early, the disbudding of Peaches and Apricots may be commenced late in the month; do not remove much at first, as sudden changes in the weather are frequent. Protective materials must be removed gradually, so as to inure the trees to full exposure early next month. Watch well for the appearance of aphides on Peaches, and syringe with Tobacco water immediately. The leaf-roller on Apricots is very destructive to the young fruit, and should be systematically picked out. Run a narrow hoe through Strawberry beds, to loosen the surface and disturb vermin. Cut down the canes of Autumn-bearing Raspberries, nearly to the ground.



### Flower Garden.

Let the principal sowing of Hardy Annuals be made immediately, if it were not done last month. The dung bed recommended last month will now be ready, and may at once be filled with pots or pans sown with Tender Annuals, such as French and African Marigolds, Spanish and Indian Pinks, German and French Asters, Zinnias, Nolas, *Tropaeola*, *Maurandias*, *Lophospermums*, and many others which will be found enumerated in the Catalogue, most of which will be required to be pricked out into nursery beds to be finally transplanted into the borders towards the end of next month. Plant out beds of German Stocks from the early sowings, keep them shaded until rooted; sow more seed for succession, and also of intermediate stock for Autumn blooming. The value of bulbous plants for Spring display will now be fully apparent; for with Hyacinths, Jonquils, Narcissus, Scillas, Van Thol, and other Early Tulips and Turban Ranunculus, an amount of beauty may be realized which those who have not tried cannot conceive. Plant out immediately the beds of *Tigridia Pavonia* and *conchiflora*. Sow Hollyhocks and other perennial herbaceous plants, also biennials for next year's blooming. Let bedding-plants in their various stages have due attention; any which are pot-bound may towards the end of the month be turned out under a temporary framework into light soil, and kept covered at night: attend particularly to keeping down insects; it very often constitutes the difference between success and failure. Look well to the watering of newly planted Trees, Shrubs, Roses, and Herbaceous plants, if the weather is at all dry and parching.

### Conservatory.

Continue to pay particular attention to the removal of such plants as are likely to suffer from remaining too long in this structure. Forced Indian Azaleas must be taken back into heat to perfect their growth, previous to which examine them thoroughly for thrips or their eggs; and if infested, let them undergo a thorough fumigation in close quarters; at the same time take the opportunity to prune them into shape, if necessary. Regulate and train out the permanent Climbing Plants as soon as they make growth. Secure a good supply of *Muneca elegans*, and sow seed now for next year's flowering. The following are a few of the most desirable Annuals to be brought forward in the other structures for Conservatory decorations:—Balsams, *Brachycome*, *Browallia*, *Clintonia pulchella*, *Cockscomb*, *Phlox Drummondii* in variety, *Portulacas*, *Schizanthus*, *Salpiglossis*, *Globe Amaranthus*, *Lobelia ramosa*, Egg Plants, and others which will be found in the Catalogue; they should be sown in pans the first week in this month, and placed in a gentle hot bed, potted off when ready, and grown on for some time in a dung-bed frame, shifted whenever necessary, and removed into pits to flower previous to being placed in the Conservatory.

### Forcing House.

So many of the permanent conservatory and greenhouse plants will now be blooming, that this house will not now be so largely drawn upon; it may therefore be used as an auxiliary to the stove and other houses, which are apt to be overcrowded at this season. Young plants of Indian Azaleas may be brought in here to make their growth; and the stove may be relieved of the earliest *Gesneras*, *Gloxinias*, and *Achimenes*, which will now require plenty of room.

### Stove.

*Ixoras* will now be making nice growth, and should have the flowering shoots trained out equally. Young plants of *Aeschynanthus* may have a good shift when well-rooted, and should be properly trained out to show their bloom. Fast-growing plants, such as *Clerodendrons* and *Dipladenias*, must have constant attention paid to shifting whenever they require it; maintain a brisk growing temperature with damp atmosphere.

### Orchid House.

As most of these plants will now be advancing rapidly, the temperature may be increased to 65° by night, and 85° by day, with solar heat; at the same time every means must be used to keep up a complete humidity in the atmosphere, both by the use of water on the shelves and walks, and by evaporation. Be careful of syringing overhead until the growth is more developed. Shading must now be resorted to on hot, bright, sunny days.

### Greenhouse.

Give air freely to Heaths in bloom or advancing thereto, and endeavour to keep the surrounding air rather moist, but not stagnant. Hard-wooded plants generally, such as *Hoveas*, *Boronias*, *Chorozemas*, *Acacias*, with many others of that section, will now make a grand display; attend well to the watering and aeration, as before directed. Shift some of the best *Correas* for early flowering next winter; also some nice plants of *Mitraria coccinea* should be growing on fast for flowering in June and July. Remove all the blooming *Cinerarias* to the conservatory, as that will afford room for the successions to be shifted and brought on. The general stock of *Calceolarias* will be throwing up the bloom spikes, and should be supported by neat stakes; persevere in fumigation. The varieties of *Lilium japonicum* and *Alstromerias* should now be more liberally watered, and placed in a pit near the glass. Attend to the stock of young *Fuchsias*; select some of the best to have a liberal shift for early flowering. Attend to previous directions with regard to *Pelargoniums*; keep them as near the glass as possible, let them have plenty of room and a free circulation of air; give also a due supply of manure water; pick off the blooms of such as are retarded for late blooming, and fumigate often.

### Forcing Fruit Houses, Pineries.

Progress is here the order of the day; keep the fruit well supplied with the strongest plants from the successions, which, being now in a very active state of growth, will require plenty of room. Attend well to the use of clear liquid manure to the roots, and also to keeping up the moisture of the atmosphere by evaporation and pouring water on the walks, &c. Let the bottom heat range at or near 85°; in short, use all the means, as before directed, to keep the whole stock progressing.

### Vineries.

The operations here will not materially differ from those of last month, being principally confined to thinning the fruit, removing superfluous shoots, and stopping the branches and laterals. As the fruit swells off and approaches the stoning point, avoid, as much as possible, extremes of temperature: 60° by night should be the lowest; and air may be given at 75° to 80° during the day. Attend to the state of the borders outside; and by whatever means they are protected from external influences, let it be effective, as a check at this stage would be very injurious: see also that inside borders are kept well supplied with water and liquid manure, always to be applied at a temperature of not less than 60°.

### Peach House.

As these will now be swelling off the fruit, see that they are properly supplied with tepid water, and sometimes manure water, more or less according to the state of the drainage. As soon as the shoots are long enough, begin training them to the trellis: at the same time remove every shoot not actually required; but if the disbudding has been gradually carried on, as so often advised, there will not be many to remove. Give abundance of air early in the day, but close early, with solar heat, and syringe abundantly; the temperature should range from 55° to 60°; and a little top air left on at night will be beneficial. Remove superfluous shoots from Cherries, and stop luxuriant ones which are left on; lessen the quantity of water as the fruit ripens: the same remarks will apply to Figs. Let Strawberries ripening their fruit have abundance of heat, air, and light.

### Pits and Frames.

Look well to the advancing crops of Melons and Cucumbers; thin out the vines, and keep them constantly stopped; encourage the swelling of early Melons by a good supply of tepid water, and a brisk bottom heat by frequent changes of linings; ridge out more for succession, and sow more seed: towards the end of the month throw up a ridge of dung and leaves; level the top, cover it with garden soil, and sow on it some Vegetable and Custard Marrow under hand-glasses: pot off Tomatoes, Capsicums, and Chillies; give Turnips and Carrots in the frames a good supply of water to assist the swelling of the roots.

**Now send for J. Carter and Co.'s General List of Bedding and other Plants.**

## M A Y.

### Kitchen Garden.

Considerable exertion will now be required to keep up with the work, which will increase every day: the hoe must be kept constantly at work among all advancing crops; and as soon as they can be well handled, thin out the beds of Onions, Carrots, Parsnips, Parsley, Red Beet and Turnips, to the proper distances; afterwards run a small hoe through the beds: sow Scarlet Runners, the first week for the main crop, and the last week for succession: make two more sowings of late Peas this month, and see that they get plenty of water if dry weather sets in: sow also more Dwarf French Beans and Broad Beans, also a small sowing of Carter's Matchless Cabbage. Keep up successional sowings of Spinach, Lettuce, Radish, and Salading as before advised. Chicory is a very useful plant for salads in winter, and should be sown this month in drills, and thinned out to about six inches apart. Sow Green Curled, Mossy Green, and Batavian Endive the third week for first crop. Kohl Rabi should be sown early this month, also large purple Cardoon in trenches prepared the same as for Celery. Make another good sowing of Turnips, such as Stone, Orange Jelly, and Polley's Nonsuch. Plant out the earliest Brussels Sprouts and Savoy Cabbage: all the Brassica tribe, to be grown tender and fine, should be planted in well-manured, deeply-trenched ground. Plant out more Cauliflowers and successions of Lettuce, also the earliest Celery as soon as it is ready, and see that it is liberally watered. Prick up the soil between the rows of Potatoes, with a steel digging fork, previous to earthing; it is far better than hoeing. Manure and trench up the ground intended for the main crops of Broccoli and Winter Greens.

### Fruit Garden.

Disbudding wall-fruit trees will now be in full action, and is an operation so important that we would call particular attention to it; for, by following it up carefully and judiciously during this and next month, scarcely any winter pruning will be necessary, which is of great advantage, more particularly to stone fruits, which are in general so impatient of the knife: all over-luxuriant shoots should be timely and entirely removed, unless they are required for filling up blanks, in which case they must be kept stopped, so as to throw strength into the weaker branches; let this process of disbudding be followed at each manipulation by powerful syringings with the garden engine for the dislodgment of insects and cleansing the trees; clean soft water will answer for most purposes; but if aphides are numerous, a solution of tobacco water must be added. If the weather is dry, water and mulch newly planted fruit trees.

### Flower Garden.

Early in this month commence planting the rooted runners of Neapolitan, Russian, and Tree Violets, in beds previously prepared by the addition of fresh compost, at from seven to nine inches apart, and take care during the season to give them abundance of water: propagate also Spring-flowering plants, such as Alyssum, Iberis, Arabis, Wallflowers, and Arenarias, to be planted in the reserve garden when rooted. Sow a bed of German Asters and some Hardy Annuals in pots plunged in a shady place, for the purpose of filling up vacancies later in the season. The last week in the month will be the proper time to commence planting out the bedding-plants: begin with the hardiest and well-hardened plants, particularly Verbenas and Calceolarias, leaving the tenderer sorts, such as Heliotropes, Petunias, Salvias, and others likely to suffer even from a slight frost, until early next month. Towards the end of the month, when the plants are large enough, commence planting in the mixed borders the Tender Annuals mentioned last month; choose dull days for the operation, and water through a fine rose to settle the earth about the roots. Roses should now have plenty of liquid manure and frequent syringings overhead. Rhododendrons, Azaleas, and other choice flowering shrubs, must be constantly watered in dry weather to secure a fine bloom. Keep Picotees and Carnations carefully tied to neat stakes, and protect choice Tulips from drenching rains.

### Conservatory.

The great abundance of plants which will be in flower at this season will render this house very gay and attractive; great care should be used to keep everything very neat and clean, so that the enjoyment may be perfect. Insects at this season

must have incessant war waged against them, as this is their principal breeding time, and if they are allowed to accumulate, the consequences will be very serious. Examine the state of the borders in which the permanent plants are growing; and if it appear necessary, dig them over and remove some of the old soil, replacing it with fresh compost. Give Oranges and Camellias, as well as any other free-growing plants which require to be pushed on, an occasional dose of clear manure water. Guard against the ravages of the red spider by constantly syringing such plants as are liable to it, but be careful not to wet choice flowers.

### Forcing House and Stove.

These two structures may now be merged into each other, as forcing flowers, properly so called, will be done with for some months, and the Forcing House will be called into requisition for relieving the Stove of numerous plants requiring more room. As growth is now very active, keep up a liberal supply of humidity in the atmosphere, with a brisk temperature, say 60° minimum at night and 80° maximum by day. Remove Gardenias in flower to the Conservatory. Shift Achimenes, Gesneras, and Gloxinias as they require it, and train out Achimenes to neat stakes as they make growth. See that Stephanotis, Allamanda, Mandevilla, Passiflora, Ipomoea, and other Stove climbers are properly trained out: cut out a portion of the wood if they get too crowded. Attend particularly to the welfare of young plants intended for Autumn and Winter blooming.

### Orchid House.

Many of these are now in great beauty, and amply repay any amount of care that may be bestowed upon them. Shading during bright sunshine will now be imperative; persevere also in maintaining air moisture, particularly in the early part of the day; for if too much is used late in the afternoon, the coolness of the nights will cause it to condense rapidly, and if the drops fall on any of the choice flowers, they will become discoloured. Take down suspended baskets occasionally and dip them in water of the same temperature as the house; Dendrobiums, and other of the hardier sorts, may be placed in the Conservatory for some time: do not over-water plants with bulbs, approaching maturity.

### Greenhouse.

Towards the end of the month, many of the New Holland and other hard-wooded Greenhouse plants that have done blooming may be removed to a sheltered situation out of doors; very choice specimens, however, particularly small-growing ones, must not be brought out at present, but kept growing on in pits, giving a free exposure in fine weather, but keeping on the lights when rainy, and shading from hot sun. Prick off seed-vessels from Azaleas as they go out of bloom; and if they require shifting, do it when they are making growth. Continue training out Pelargoniums, and give each plant as much room as possible; apply clear liquid manure at least once a week, and keep up a thorough ventilation. A good supply of Fuchsias must now be shifted, and grown on quickly for Autumn decoration. Place some lumps of fibrous loam around the base of the flower stems of the varieties of *Lilium lancifolium*, and give them a dose of liquid manure occasionally: the first week in the month get in cuttings of *Chrysanthemums*: the best plan is to take five or six cuttings of each sort and insert them around the edge of a three-inch pot in light sandy soil, placing the pots in a frame on a gentle heat and keeping them properly shaded until rooted.

### Forcing Fruit Houses, Pineries.

As the Summer-fruiters will now be advancing fast, they must have no check for want of bottom heat and atmospheric moisture; to assist in swelling the root, let them have a moderate supply of liquid manure; keep the surface of the beds moist, and pour water about the floors, &c. several times a day; keep the bottom heat at about 85°, the top heat may range about 80°, with a good supply of air when it rises higher. Shift succession plants according to the room there is to devote to them; the most forward will be wanted for Autumn fruiting, and must be most encouraged: give due attention to the Black Jamaica and other sorts for Winter fruiting; keep up the stock by planting suckers as they come to hand.

### Vineries.

As soon as the stoning process is over and the fruit begins to swell off for ripening, lessen the amount of air moisture and gradually inure the plants to a full current of air to assist the colouring process; and that this may be done more effectually, keep up good fires and leave a little air on at night. Finish thinning out the fruit of the general crops, and train out the branches to admit as much direct solar light as possible to the leaves; be careful to exclude sharp currents of cold air when the vines are in this state. Later houses must have a little fire heat to assist the development of perfectly-formed bunches and the setting of the fruit.

### Peach House.

Whilst the fruit is swelling off, let there be no want of water at the roots, or air moisture, but withhold it gradually as the ripening begins; and as this is the stage in which the red spider finds a genial atmosphere, remember to smear sulphur on the pipes when cool by way of prevention: keep the young wood well trained in, and the fruit exposed to the light; give the later houses abundance of air with fire heat, and continue the necessary processes of disbudding, thinning the fruit, and training; shut up early, and syringe abundantly. Cherries in pots done bearing may be removed to a temporary protection and afterwards plunged in the open ground. Figs ripening fruit must have but little water at the roots, but do not let the atmosphere get too dry; persevere in stopping the young growth.

### Pits and Frames.

Early in the month throw out the spaces intended for Ridge Cucumbers, fill them up with prepared dung and leaves, throw the soil back over it and sow the seed under hand-glasses,—the Steckwood and long Ridge for general purposes, and the short prickly for Girkins. Sow also more Vegetable Marrows. Keep the general crop of Melons and Cucumbers well thinned out at short intervals: if left too long, and then a grand thinning is made, a severe check frequently ensues. Shift Chilies and Capsicums and plant out Tomatoes at the end of the month.



## JUNE.

## Kitchen Garden.

Plant out now the main crop of Brussels Sprouts in very good ground; also Borecole, Chou de Milan, Broccoli, Cauli-flowers, Cape and Walcheren Broccoli, Savoys a good breadth, Early Cabbage, and Cos Lettuce as fast as the ground becomes vacant and can be got ready for them: see that a good supply of manure is trenched in. Persevere in thinning out all advancing crops of Carrots, Turnips, Red Beet and Cabbage Lettuces, and do not neglect to keep the surface constantly stirred, not only to destroy weeds, but for the welfare of the crops: make again two sowings of Peas,—the first of Harrison's Glory, Perfection, and Auvorgne; the last of Carter's Earliest and Dickson's Favourite: sow also more Turnips and French Beans; also Scarlet Runners and Long-Pod Beans for the latest crop; also more Spinach, Lettuces of sorts, Radish twice, a few Early Horn Carrots for drawing in the autumn, and a few Onions for drawing young if required: make also another sowing of Endive for the main crops. Plant out a good breadth of Celery for the principal crops; let the trenches be well manured, and give the plants an abundance of water. Finish earthing up all the main crops of Potatoes. Train up and stop Tomatoes as they advance in growth, and give them some manure water occasionally.

## Fruit Garden.

In this department, this is one of the busiest months in the year. Cherries, Pears, Plums, Vines, Peaches, Nectarines, Apricots, and Figs will all be claiming attention at once. Disbudding must be continued, the fruit judiciously thinned out; in the case of stone fruits, a few more should be left than are quite necessary, in order to make up for those the tree will cast in stoning, which, however, will not be many if the above operations have been gradually carried on as recommended in previous months. Strawberry beds should be immediately mulched with some suitable material to keep the fruit clean; nice straight straw is undoubtedly the best, and short grass about the worst. Now is the time to apply to these beds some dressings of stimulating liquid manure: attend also to the removal of runners; such as are required for the purpose of making new beds should be layered into four-inch pots and kept well watered; all other runners must be constantly removed. Thin out Gooseberries for bottling, and at the same time remove some of the strong luxuriant shoots from the interior of the trees; Currant trees also may be so treated with advantage; and let the ground under both be well mulched over with some of the cleanest of the long littery dung fresh from the stable, to keep the fruit on the lower branches clean. The old plan of spurring in the breast wood on the old Wall Pear trees ought to be exploded; we recommend, in preference, that it should all be completely broken out when in a young state, taking care, however, to train-in a few young shoots where there are vacancies, which will often produce abundance of fruit the second year. Persevere in following up with powerful syringing all disbudding and thinning operations.

## Flower Garden.

As the season is now arrived in which it becomes an absolute necessity to get out the whole of the stock of bedding-plants, such things as Turban Ranunculus, Hyacinths, and other bulbs which have been occupying the beds must be taken up at any sacrifice; they must therefore be very carefully lifted without injuring the foliage, and plunged in sand for a time before being exposed to dry for storing; the next thing is to give the beds a little fresh compost, and proceed with the planting. When all the bedding-out is done, let the surface of the beds be neatly levelled, and such as require it have the plants pegged down. Continue the planting-out of Tender Annuals: these are very useful in the mixed borders to supply the vacancies which are always occurring through the plants going out of bloom; take care that there is a reserve bed of these things to supply future vacancies of the kind. Patches of Annuals sown last month must be well thinned out; and more may be sown for later blooming. Plant in the mixed borders a good number of Cuphea platycentra and strigulosa; they come in so cheerful-looking late in the autumn. The propagation of Spring-flowering Herbaceous Plants must be finished off immediately. Pinks also, and Pansies, must now be propagated. About the middle of the month, sow Brompton, Queen, and Emperor Stocks, to stand through the winter. Finish off the planting of Dahlias, and keep them well watered. Continue to give Roses thorough syringings, unless just when they are in full bloom, and also repeated doses of liquid manure. Attend particularly to the destruction of weeds and insects, to the neatness of the borders and tying up all plants requiring support, to the finished appearance of edgings of all sorts, to the pruning away any luxuriant overgrowth in shrub or flower, to keeping grass well mown and gravel well rolled,—all of which, simple and obvious as they are, yet constitute the minutiae of enjoyable gardening.

## Plant Houses, Conservatory.

Now will be seen the advantage of starting varieties of Achimenes early, as they will be highly conspicuous ornaments amongst the many beautiful objects which will now be concentrated in this structure, for the good of which, and also of the permanent plants, remove any large plants in pots or tubs to a sheltered place out of doors; this will allow a greater liberty in changing the arrangement of the flowering plants, as well as affording room for the concentration of all the best and gayest flowering plants in a situation where, as a whole, they are much more likely to be admired than when scattered here and there. Orange trees in tubs are at this season very liable to the attacks of insects of various kinds, which must be guarded against by constant syringing and occasional fumigation.

## Stove.

*Achimenes picta*, started now in well-drained pots or shallow pans, will be found a very useful plant for winter flowering; other varieties of *Achimenes*, started late, may now be shifted, and grown on freely for the Autumn. If the heat of the bark bed is declining, freshen it up by the addition of some well-sweetened new material. Give a good supply of liquid manure to all fast-growing plants, such as *Allamanda*, *Alpinia*, *Aristolochia*, *Clerodendrons*, *Hidylehium*, and *Stephanotis*.



Guard well against insects, such as Thrips, Red Spider, and Aphides; keep them down by the persevering use of fumigation and syringing. Choice Gloxinias and Gesneras may now be readily propagated, the former from leaves, the latter from cuttings; the brisk heat of a dung-bed frame is the best medium for the purpose. Pot-off seedling Gloxinias, and encourage a liberal growth by heat and atmospheric moisture; be sure that this house is not overcrowded; there will now be plenty of room in other structures to take superfluous plants into; keep up a gentle fire-heat, more or less according to the state of the weather.

#### Orchid House.

But little can be added to previous directions: the temperature must be regulated by external conditions; fire-heat will generally only be necessary at night and on dull cold days. Shading must be applied during bright days, particularly after a series of dull cloudy days, as the plants are then much more susceptible of injury. Give water at the roots freely to all plants in an active state of growth, but gradually withhold it from such as are approaching maturity: this will be the case with some of the Dendrobiums; and they should be removed to a cooler place; such as are placed in the Conservatory for a short time will require less water.

#### Greenhouse.

The early forced Azalea indicæ will now have made their growth, and should be removed to a cold pit; let them have a free circulation of air night and day, but shade from hot sun. Large specimens of most kinds of hard-wooded greenhouse plants will be better placed in a sheltered spot out of doors, but tilt them on one side during heavy rains. The young growing stock, on the contrary, of such things as Boronias, Croweas, Chorozeas, &c., must be retained in pits or cold frames, and encouraged to grow by an occasional gentle syringing and a partial closing of the lights. Attend to the young growing stock of Heaths, and give them another shift towards the end of the month. Stop all luxuriant growth in time. Give abundance of air to winter-flowering Heaths and Epacris, which should now be making good growth, and gradually inure them to a full exposure. Chinese Primroses, for winter and spring decoration, must now receive particular attention; the young seedlings should now be potted into three-inch pots; place them in a cold pit near the glass, and give them a free circulation of air, with shade from powerful sun. The double varieties are more tender in their constitution; they should now be starting into a fresh growth, and may be shifted according to their strength; but they will not bear overpotting; place them in a cold pit, and give abundance of air to dispel damp, and equalize the temperature by shading from hot sun; damp and drip are very injurious. Continue previous directions for Calceolarias, also the training-out of Pelargoniums, and supply both with liquid manure when in full growth. The remaining stock of Fuchsias for this season's bloom should now have their final shift. Give the Annuals for the Conservatory their final shift, and grow them on as fast as possible. The Chrysanthemum cuttings will now be well rooted, and must be potted off immediately and placed in a frame with gentle bottom heat until they have rooted out; let them have a free circulation of air; and at the slightest appearance of mildew, dust the leaves with sulphur. Lachenalias may be dried off; and the quantity of water must be lessened to *Tropeolum grandiflorum* and *brachyceras*. Tie up the flowering stems of *Lilium laucifolium*, and place them in a sheltered situation out of doors; some lumps of nice fibry loam, laid around the base of the stems, will be beneficial.

#### Forcing Fruit Houses, Pineries.

Plants ripening fruit will require a high temperature, with a free circulation of air and full admission of light; let the swelling fruit be assisted with occasional supplies of liquid manure. The state of the plants intended for Autumn fruiting must now claim attention; if the necessary shiftings have been attended to, as so often directed, they should now be showing fruit; and if not, keep them rather drier at the root for a time, which will generally prove effectual: give to such as require it a larger pot, and place them in their final fruiting place: look to the stock intended for late Winter and Spring supply; shift such as require it, and keep them in a free-growing state by the liberal application of air and root-moisture. Pay constant attention to the state of the young successions, and shift them as they require it; also keep up the stock of young suckers.

#### Vineries.

The fruit in the early house will now be ripe and in use; see that abundance of air is supplied, and keep all laterals well stopped; fermenting materials may be partially removed from the outside—do not take them all away at once. The later houses will now require constant attention. Muscats will require fire-heat during the time they are in bloom, as they will not set well under a temperature of 70°; indeed fire-heat will be of use to all the late creps during their blooming stage, particularly if the weather is dull and cold; do not neglect the thinning in time—it is more necessary than ever for late grapes, as they have to hang so long on the trees, and must be considerably more thinned than is necessary for early ones: persevere in keeping up a growing atmosphere, and attend to training and stepping.

#### Peach House.

Continue to pay attention to training-in the shoots; and as the fruit will now be ripe, or nearly so, water at the roots must be discontinued, and the atmosphere be kept moderately dry, yet not so much as to increase the development of the red spider—for the prevention of which, use sulphur as before directed. Continue the application of moisture both to the atmosphere and the roots in the later houses, and follow up perseveringly all the former directions with regard to disbudding and thinning, and the extirpation of insects. The first crop of fruit on the Figs will now be ripe; and as soon as it is gathered, the second crop will claim attention; prick up the borders, add a little fresh compost if necessary, and apply a good soaking of water; top-dress the pot-plants, and give liquid manure; syringe the whole abundantly, and give abundance of air in the morning—but shut up early and syringe; thin the fruit if too thick, and attend to stopping young shoots.

#### Pits and Frames.

Still continue to keep up a brisk growing heat by the addition of fresh linings to Melons and Cucumbers. In every stage a nice bottom heat is essential; the top can always be regulated by shading and giving air. Continue to earth up advancing crops. Ridge out more for succession; and if Melons are required very late, and there is a hot-water pit, more seed may be sown; they will ripen in October. Make up Mushroom beds.

## JULY.

## Kitchen Garden.

Let there be now no delay in getting in the main crops of Broccoli, Winter Greens and Celery, if not done as recommended last month: plant out also a good bed of June-sown Cabbage: strew some salt over Asparagus and Sea Kale beds in moist weather; the former will also benefit by the application of guano water: keep up successional sowings of Lettuce, Radish, Spinach, and Turnip; also another sowing of Endive for the main crops: examine the state of growing crops generally; apply water wherever necessary, particularly to Celery; keep the earth constantly stirred about, and weeds destroyed: nail up Tomatoes: sow a little more Cabbage for succession; this plan is far better than that of letting the old beds stand for a second crop of "Sprouts" as they are called,—it weakens the ground too much: one more sowing of Peas may be made for the chance of a crop, but they must have good ground, be kept well watered, and when well up, the ground should be mulched on each side of the rows.

## Fruit Garden.

Follow out previous directions with regard to the removal of superfluous wood, nailing and syringing powerfully Wall-fruit Trees of all sorts. Protect Cherries from birds: half-inch mesh netting is the cheapest in the end; pay particular attention to the stopping of Figs. Thin-out the fruit of choice kinds of Pears when they have set too thickly, taking care to remove all deformed fruit. Thin-out the young canes of Raspberries, and secure them from winds. Fruit trees now swelling their fruit, such as Plums, Apricots, Peaches and Nectarines, and newly planted ones in particular, will be all the better for copious waterings, if the weather is dry. Do not forget last month's directions with regard to Strawberries, whether for forcing or beds.

## Flower Garden.

Bedded-out plants will now be started off into full growth, and will require to be trained out and nicely pegged down as they advance. The borders in the mixed-flower garden will require to be kept up to the extreme of neatness, by staking and tying the plants as they require it, hoeing and raking the borders at short intervals, particularly after heavy rains, and clearing away all old flower stems and decaying leaves. As Roses will now be objects of great attraction, they must have corresponding attention paid to them: nothing tends more to prolong the Summer bloom than a constant supply of water and liquid manure; dead flowers and insects must be constantly removed by handpicking; and when the bloom is over, use the syringe thoroughly. Lose no time in getting a good stock of Cloves, Picotees, and Carnations layered. Prick out Brompton and Queen Stocks into Nursery beds; see that beds of Violets do not want for water. Towards the end of the month put in a few hand lights of choice Verbena cuttings on a south border, which will make fine plants to pot in September, and supply any number of cuttings in the Spring. The propagation of any choice kinds of bedding plants when the stock is short may be commenced at once and followed up as fast as cuttings can be procured. Stake Hollyhocks and Dahlias in time, also Salvias, Phloxes, Asters, and other autumnal-blooming plants. Pick off the seed-vessels from Rhododendrons and Azaleas; and if the weather is dry, let them have copious supplies of water. Clip box edgings, also Yew, Thorn, and Laurel hedges; go over the Shrubberies and reduce any over-luxuriant growth.

## Plant Houses, Conservatory.

The plants in this structure which are not in bloom will be benefited by copious syringing every evening. The floors, the borders, and other vacant parts of the house should be saturated with water daily during very hot weather. Continue to apply liquid manure to strong growing plants, and train out Maudevillea, Passiflora, Lapageria, and other climbing plants as they advance. Shade from powerful sun, ventilate very freely during the day, and also leave on a little air all night. Assist the display by continuing to bring forward the main stock of Achimenes, Gloxinias, and the earliest Balsams; see that the other Annuals in pots are in a forward state of preparation, as they will soon be in requisition.

## Stove.

This house should now be gay with Ixora, Echites, Allamanda, Stephanotis, Dipladenia, and Clerodendrons, all of which will at present require only the usual routine of watering and keeping down insects; maintain a moist atmosphere, and syringe often where practicable, but beware of spotting the flowers; soft-wooded and free-growing sorts may have diluted liquid manure twice a week. Give the plants intended for winter blooming a shift if they require it; as most of them will be getting too large to remain in the dung-bed frame, they should now be removed here; and any old plants of the same sorts now starting into a fresh growth may be pruned into shape and shifted according to their requirements.

## Greenhouse.

Hard-wooded plants of most sorts still requiring a shift must be attended to immediately; those which, having been shifted some time back, have made thin growth, should now be exposed to all but the most powerful sun in order to harden the tissues and induce a free-flowering habit; most of the large plants of Chinese and Indian Azaleas may have nearly free exposure to the sun, but should be protected from heavy rains. This is a good time, when water requires to be given so often and abundantly, to ascertain the state of the drainage, and if defective to remedy it; for no plant with a defective drainage can ever be safely wintered. Look to the state of young specimen plants in cold pits, keep them more shaded than older plants, at the same time let them be sufficiently exposed to harden the growth and prevent drawing; most of the foregoing remarks will apply to Heaths, young plants of which growing into specimens should have their final shift for the season; and see that they are well trained down and luxuriant growth stopped; observe that most kinds of hard-wooded plants are now advancing towards a state of rest, and the tendency of all operations connected with them should be to ripen the wood and produce maturity of growth.



Pelargoniums which are past flowering should be placed out of doors in a situation exposed to the full sun and very little water given; this will thoroughly ripen the wood and throw them into a dormant state, when they may be closely headed back. Encourage the growth of the later stock for Autumn blooming, expose them to the influence of the sun, but give them plenty of water and liquid manure. Give the seedling plants of Chinese Primroses another shift and plenty of room in a cold pit, shade from hot sun, and be sure that the drainage is perfect. Cinerarias which are past blooming should have the tops cut off and be placed out of doors on coal ashes to form another crop of suckers. The best-impregnated Calceolaria seed may now be sown in shallow pans and kept in a very cool place in a pit; this plan of sowing early and getting good plants established in pots before Winter, is very preferable to keeping old plants; seedlings are invariably more healthy and robust in habit, and if carefully impregnated they will produce very effective plants for decorative purposes, although perhaps not up to the Florist's mark of perfection. The present is a good time to go over the stock of Pot Camellias; give a shift to such as require it, but never a large one, as they are better with the roots rather cramped than otherwise: it is very important that the drainage should be perfect.

### Forcing Fruit Houses, Pineries.

Every advantage should now be taken of the lengths of the days and nights, to induce a robust, healthy, and hardy habit of growth, to ensure which ventilate freely, but shut up early. Continue the application of liquid manure to the swelling fruiters, also to successions, and observe that the chances of good fruit for another season will depend upon the attention paid to succession plants now; keep them growing freely in a liberal bottom heat and a moist atmosphere, and attend to shifting such as require it; observe also that with regard to ripening off the fruit, it is not well to push it too fast, for the slower the process the better the flavour; and any attempt to hasten it by keeping up a very high temperature and too much dryness at the root, will not only lessen the weight of the fruit, but the saccharine secretions will be partly acidified, and the flavour very much deteriorated.

### Vinerias.

This will generally be the best month for ripening off the wood in early houses, from which the fruit is cut, or nearly so; remove gradually all the late growths, and give air with freedom both day and night: it will very much assist this process if some means can be adopted to throw off heavy rains from the borders (if outside) by the use of tarpaulin. Continue stopping the laterals and superfluous wood in the later houses, and give the berries a final thinning; do not be afraid of a little fire-heat at this stage, as they will keep all the better by-and-by; apply liquid manure to the borders.

### Peach House.

As soon as the fruit is all gathered, which will be towards the end of the month, let a little extra attention be given to get the wood thoroughly ripened; give the trees a good syringing after the fruit is off, and repeat it as often as is necessary to keep down the red spider, but do not water at the roots, as that would probably induce a fresh growth, which is by no means desirable; let them have thorough ventilation day and night. The second crop of Figs should now be swelling fast; let them have plenty of water at the roots, shut up early and syringe freely, continue stopping the young growth. Strawberries for next year's forcing will now require great attention; if they were layered into pots as advised for beds last month, the strongest should be selected and potted at once into six-inch pots; place them in an open situation fully exposed to the sun, but on a cool bottom; give them frequent applications of soap-suds alternately with water, and occasionally liquid manure: continue to lay more runners into small pots as they become ready.

### Pits and Frames.

Pay attention to the bottom heat; for late Melons and Cucumbers should be kept at about 75°; keep them well thinned out, stop constantly and shade during hot sun; observe Melons ripening fruit must *not* be shaded: look to the state of young plants required to take the place of such as are past bearing, and give them a shift into a larger pot if the places are not immediately vacant. Tilt up the glasses over Ridge Cucumbers, and begin to train the shoots outside; let them ramble without stopping: both these and Vegetable Marrow must be abundantly watered.

## AUGUST.

### Kitchen Garden.

The first week in this month is the proper time to sow a good bed of Prickly Spinach for Winter supply; also towards the end of the month sow American Cress for Winter and Spring salading. Sow Canterbury for hand-glasses and Winter storing within a few days of the 25th of the month; the best sorts are Carter's dwarf Mammoth, New Giant, and Walcheren: sow also Bath Cos and Hardy Cabbage Lettuce to stand the Winter, also large Tripoli Onion for early Spring supply. Keep up successional sowings of Radishes and small salading, according to the demand; also make another sowing of Endive for succession. As the crops of Peas are cleared from the ground, room will be found for planting successions of Celery. Plant out a good stock of Bath Cos and other sorts of Lettuce. As soon as the first sown Endive is large enough, plant out a good bed. The ground from which Early Potatoes have been cleared should be planted with late Savoy, Coleworts, and Asparagus Kale; a portion of it should also be sown with Turnips for late crops. Remove the flower stems from Artichokes as fast as they are cut, in order to strengthen the roots. Continue to earth up Celery, and see that it does not want for water and liquid manure; a little salt mixed with the water is a good thing, both for the plants and to drive away worms and snails.

### Fruit Garden.

Continue nailing in the young wood of Wall-fruit trees in general; the strong shoots of Peaches and Nectarines, which at this time throw out a great many laterals, may be stopped with great advantage at the lowest lateral, which should then be trained on as a leader: this is also a good time to complete the removal of all superfluous wood not likely to be wanted another season; be careful of the foliage, as upon its retention and healthy growth the maturation of the fruit bud depends. Protect Morello Cherries, Warrington Gooseberries, and Red and White Currants from birds; the elastic hexagon netting is

the best medium, as it also excludes wasps and admits air and light: the best method of securing it to the wall is to use the broad Irish tape all round the outside, through which to pass the nails, which will preserve the net from tearing; it is also an excellent covering for Peaches and Nectarines, and indeed of all fruits where wasps are troublesome. Mice and small birds, which are now getting very destructive to choice Pears and Figs, should be trapped. Beds of Strawberries should now be planted without delay from those which were layered in pots for the purpose; keep the crowns well up above the surface of the soil, so that they may have full exposure to the sun, which is the principal means of inducing the formation of strong fruit buds.

### Flower Garden.

Operations in this department for this month are principally routinal, such as watering, staking, tying, and in fact all the operations which have a thorough neatness in view: bedding plants of all sorts should now be in very great beauty, and it is the proper time to determine on any different arrangement of colour which may be thought desirable for another season. The tall varieties of Lobelias will be very much benefited by frequent and copious applications of liquid manure, so also will the beds of Cannas. Give plants of Pampas Grass frequent doses of liquid manure, and water alternately if the weather is dry. Propagation for the wants of another season must now be commenced, particularly of such sorts as do not root freely; for unless they get pretty well rooted before Winter, they are often difficult to preserve. Attend strictly to the routine of mowing, sweeping, and rolling, and to keeping the edges of all well defined; indeed perfect order and a finished appearance are quite as essential to the enjoyment of a garden as beautiful flowers and superior cultivation.

### Plant Houses, Conservatory.

As it is generally desirable to keep up a display of bloom in this house, even at this season when the out-door display is at its height, we shall find the advantage of having a good supply of well-grown Annuals in pots to fall back upon, for in a Conservatory of any pretensions, however largely we may draw upon the Stove and Orchid House, there will be many places to be filled up for which such plants are very suitable, and as their value is practically known, we have all along advised a proper attention being paid to them. Ferns in pots in the shady parts of the house are another very useful tribe of plants, and are invariably objects of great attraction. The Fuchsias, if treated as before directed, will now be advancing fast into a good bloom, and must be drafted into this house as they become ready. Oxalis Bowei, grown in pots, is a very fine object just now in the Conservatory. Tea-scented Roses form another additional attraction. Continue the routine of training out climbing plants, but do not now cut them in, as a rambling growth is favourable to blooming. Air, water, and syringe, as before advised.

### Stove.

Examine frequently the state of the roots of the plants intended for Winter flowering, and if necessary give them a shift into blooming pots, and keep them growing on freely; fire heat must be regulated by the state of the weather, but it is best not to be too hasty in its application, as plenty of air can be given in sudden changes of temperature, and this is calculated to do good rather than harm. Plants which are advancing towards maturity should be assisted into a dormant state by a gradual lessening of the quantity of water, a free circulation of air to harden the growth, and a drier atmosphere. Attend constantly to the destruction of insects, or they will be very troublesome in the Winter. Keep Passifloras and other climbing plants neatly tied in, so as not to obstruct the light too much.

### Orchid House.

Many of these, such as Dendrobiums and Epidendrums, will have matured their growth, and must be removed to a cooler temperature and drier atmosphere, in order to induce a state of rest. Continue to dip the baskets and more portable of the blocks in tepid water every week, as formerly advised, and use the syringe liberally to such as are not so easily moved, and indeed to growing plants generally, such as Lælias, Huntleyas, Barkerias, &c., which should be kept growing liberally by a high temperature and moist atmosphere; but at the same time air liberally when possible, and keep the houses well saturated with water.

### Greenhouse.

Some of the early forced Indian Azaleas will have set their bloom buds, and the wood will also be ripened, if they have been pretty well exposed; and therefore they may be removed into the Greenhouse towards the end of the month, taking care that the foliage is quite dry when they are housed; the same remarks will apply to the early forced Camellias, which should be housed at once; the later stock of both sorts must still be exposed out of doors, as before directed. Heaths in all stages of growth should now be standing in cold pits; such as have been recently cut in after flowering should be kept rather closer, and shaded when necessary; but when growth commences, let them have free exposure in favourable weather in common with the general stock; hard-wooded greenhouse plants, in general, will require all the exposure which a due regard to their several habits will allow during this month, in order to harden the growth, and induce a flowering habit. Pelargoniums which have been headed back, as advised last month, will now have broken again pretty freely, and should be shaken out of the soil and re-potted into pots of such size as will just contain the roots conveniently; place them in a frame or pit, keeping them shaded for a short time, but not watering too freely. Observe that this batch will be required to make a strong healthy growth before the winter season of rest, therefore regulate their treatment accordingly. As soon as the Cinerarias have formed their suckers, and begun a new growth, shake them out, and divide the roots; pot the best into four-inch pots, and place them in a cold frame near the glass; shade them as required; sow the seed of choice varieties; observe, this sowing will be a very useful one. Chrysanthemums must now be immediately shifted into blooming pots, and as soon as they are rooted through let them be liberally supplied with diluted liquid manure; give them plenty of room, and still apply sulphur for mildew. This is the time to look to the state of Hardy Plants for forcing purposes: Deutzias, Weigelas, Persian Lilacs, and Forsythias must have full and free exposure to the sun to ripen the flower-buds. Lilium



lancifolium will now be expanding beautifully, and should be immediately transferred to the Conservatory. The compost heaps of all sorts should be sometimes turned about to get sun-baked, and brought into good condition for Autumn and Winter potting; also now is the time to turn in a fresh supply: scrub and wash dirty pots, and store them away for future use.

#### Forcing Fruit House, Pineries.

If it is not already done, it is now quite time to give a final shift into fruiting pots of all the best successions for early fruiting next season; be sure that the drainage is perfect, and make a liberal use of rough lumps of charcoal, both amongst the drainage and also amongst the compost; the bed will require to be renovated by the addition of fresh material and thoroughly turning over; be careful to watch how the bottom heat works, as it sometimes gets too high after this operation; a range of 80° as a medium will be quite enough. Keep up a good supply of atmospheric moisture, and abundance of air when the weather is right. Use great caution in syringing where plants are fruiting, so as not to wet the young fruit just setting. Remove all suckers from fruiting plants, with the exception of such as will be required for keeping up the stock.

#### Vineries.

Assist the late vines with a little fire heat, to perfect the fruit and ripen the wood; stop all superfluous growth, and give them plenty of ventilation; see that the roots do not want for water up to the colouring-point; after that keep the border dry. Continue to cut out mouldy berries, and if wasps are now troublesome, nail the elastic hexagon netting over all the ventilators, using broad tape round the edges, as before advised.

#### Peach Houses.

The principal operations here will be confined to such as tend toward ripening the wood, which must be secured by a constant and free ventilation; be sure that the borders are kept dry, so as not to induce a second growth. Continue the application of water and liquid manure to Figs, now swelling the fruit, but only up to the ripening point, when, to secure flavour, they must be kept dry.

#### Pits and Frames.

Keep a large supply of good fermenting materials in a constant course of preparation, for the formation of new beds and for keeping up the heat of the linings to late Cucumber and Melon frames. Prepare also materials for successional beds of Mushrooms; spawn such as are ready: this should be done at a temperature of 80°. See that the beds do not want for water, and, when necessary, give a good soaking, but do not be always dribbling a little at a time, as it only rots off the young Mushrooms.

### SEPTEMBER.

#### Kitchen Garden.

The harvesting of the general crops of Onions will now claim attention as soon as they are ready to pull up, which may be ascertained by trying a few: let them be carefully lifted and laid out to harvest under cover of a shed, if it is in a wet time. When the ground is cleared, let it be well manured and trenched in preparatory to planting with Cabbages, to stand through the winter. Thin out the Spinach sown last month, leaving the plants six inches apart, and stirring the surface after thinning. Earth up all advancing crops of Broccoli, Winter Greens, and Cabbages; also continue the earthing of Celery when the foliage is quite dry. Tie up Endive and Lettuce to blanch, and transplant Endive twice this month—in the beginning for the principal supply, and at the end for late crops. Prick out Cauliflowers into nursery beds to strengthen them for the hand-glasses; keep up the sowing of Radish and small salading.

#### Fruit Garden.

Next month is the proper time to make new plantations of Fruit Trees, and it will conduce very much to their well-doing if the stations can be prepared this month, so that the ground may settle a little before planting: the first great essential is thorough drainage, the next to have the necessary composts in good condition, that is, well aerated and incorporated; throw up a good-sized mound, as the trees should be planted generally above the level. Trees which have a rampant, luxuriant, and unfruitful growth, may be root-pruned by the end of the month; this root-pruning is a very useful help to the fruit-cultivator, and is applicable to all strong growing Fruit Trees. When the fruit is all taken from the Peach and Nectarine trees, give them a good syringing, and if at all mildewed, dust them with sulphur while moist. Remove runners and weeds from Strawberry beds, but do not cut off the old foliage; prick up the spaces between the plants lightly with a fork: keep down weeds, and stir the soil amongst the newly-planted beds. Put in cutting of Currants and Gooseberries as soon as the leaves turn colour.

#### Flower Garden.

Towards the end of this month or the beginning of next, sow Hardy Annuals to stand through the winter; the following may be safely recommended:—*Nemophila discoidalis*, *insignis*, and *maculata*; *Gilia achillifolia* and *tricolor*; *Clarkia pulchella* and *alba*; *Platystemon californicus*; *Erysimum Perowskianum*; *Godetia tenella*, *Lindleyana*, and *rubicunda*; *Collinsia verna*, *tricolor*, *multicolor*, and *bartsiaefolia*; *Limnanthes Douglasii*; *Bartonia aurea*; *Callichroa platyglossa*; *Silene compacta*; *Virginian Stock*; *Lupinus nanus*; *Cyanus*; *Eucharidium grandiflorum*; *Sauvitalia procumbens*; *Eschscholtzia crocea* and *californica*, and *Leptosiphon androsaceus*: with the above a great display may be made in the Spring. Autumn-flowering Roses must be supplied with liquid manure. Commence the planting of *Narcissus*, *Crocus*, *Anemones* and *Aconites* as soon as the places are vacant. Stake and fasten securely *Salvias*, *Dahlias*, *Asters* and other Autumn-flowering plants. Get in a good stock of cuttings of free-rooting bedding plants in store pots to stand through the Winter. Prepare beds for Pansies. Plant out Pinks: pot off rooted layers of *Picotee* and *Carnation*, and plant the rest in nursery beds. Pick off dead seed-vessels from *Scarlet Geraniums* and *Verbenas*, and indeed try and make the most of all the late bloom by the constant removal of unsightly refuse, and attention to neatness.

#### Plant House, Conservatory.

The operations of this month in this department will not materially differ from the last. Every exertion must be

mado to keep this house interesting and gay by concentrating all the blooming plants from the other structures. Air must be given very freely in order to harden and ripen the wood of the permanent plants; the application of liquid manure to the plants in the borders should be discontinued as soon as the growth is made, and water generally not so liberally given. Let the house be thoroughly cleared, and the whole of the plants gone over and placed in first-rate condition previous to bringing in the plants which were turned out in June. See that the hot-water apparatus in every department is in good working order; get the flues cleaned out, all defects remedied, and in readiness for the Winter's work.

### Forcing House.

As this will very soon be required again for forcing flowers, it will be as well to take an early opportunity to get it thoroughly repaired and cleaned, and otherwise got in readiness.

### Stove.

Ixoras past flowering should now be cut in without loss of time, and started again in a brisk bottom heat and growing atmosphere; a dung bed is the best if it can be had. Achimenes, as they go out of flower, should be removed into an empty Vinery and water entirely withheld, so as to induce entire rest to the plant and to mature the roots; when thoroughly dry and ripe, store them away in any dry place where frost cannot penetrate. Achimenes picta, Gesnera zebrina and elongata must be grown on in a brisk heat, and they will continue to bloom for a long time. Regulate the climbing plants, which as they go out of flower should be greatly reduced and neatly tied in, so as to offer no obstruction to the light.

### Orchid House.

The temperature in this structure should now be reduced a little, to immerse the plants gradually to a lower temperature: such as are past flower and are going to rest must be kept moderately dry and in a cooler temperature; but growing plants must still have a warm and moist atmosphere, and attention paid to watering, syringing, and dipping as before directed: shading will not be necessary, unless on very bright days; but air should be liberally supplied in fine weather, particularly to the dormant portion of the stock. Remove *Cypripedium insigne* and *barbatum* to the Conservatory, where they will bloom for a long time.

### Greenhouse.

Continue to pay strict attention to following up all the necessary means required for maturing the wood of all hard-wooded plants approaching the dormant state, and indeed, as Winter is now approaching, even the growing stock must have more air and exposure, to harden the tissues and induce a hardy, stocky growth; if any appear to require it, they may still be shifted, but be careful in the after-treatment, particularly as to watering. *Calceolarias* and *Cinerarias*, also Chinese Primroses, will now be coming into full action and must have their wants especially attended to, by a constant shifting of the earliest plants as they become ready; and a large supply of successional plants in different stages of growth kept steadily progressing. Pay particular attention to fumigation. Continue to head down the later stock of *Pelargoniums* as the wood becomes ripened; and if not already done, shake out and re-pot those headed back last month: now is a time to get in a good stock of cuttings of choice roots. *Chrysanthemums* may still be shifted into larger pots if required, and continue the application of liquid manure to such as have the pots full of roots; they will still require to be staked and tied out neatly. *Mignonette* for pots should be sown immediately, and placed in a cold frame or pit; when up, give plenty of light and air. Pot the tuberous-rooted *Tropeolums* in blooming-pots according to their size, as they will not bear shifting. Pot a large supply of the strongest plants of *Violets* from the beds made in May. As the Japan Lilies go out of flower, let the pots be laid on one side out of doors. The stock of *Amaryllis* being now dormant, it is a good time to shake them out of the soil and re-pot at once; but if they have only been potted one year, surface-dressing is enough, as they only require shaking out every two years. Look now to the timely purchase of your Dutch Bulbs; the earliest customers get the freshest roots, and, as a frequent consequence, have finer blooms. Divide your stock into two lots; put one by in a place not likely to start them, and pot the other immediately, one bulb in a six-inch pot or three bulbs in an eight-inch pot for *Hyacinths*, *Narcissus*, &c., and for *Tulips*, four in a six-inch pot; these latter may be planted below the surface, but *Hyacinths* and *Narcissus* should have half the bulb above the surface. Place the pots on a leveled surface of coal ashes, and then cover them six inches above the bulbs with nice, sweet-leaf mould or very old tan, and throw a temporary covering over them in wet weather.

### Forcing Fruit Houses, Pineries.

As the season is now advanced, all plants requiring it should be forwarded a stage by shifting for the last time this season, and, with the other successions, be kept growing freely by a liberal temperature both at bottom and at top; but at the same time give plenty of air at every favourable opportunity early in the morning, and shut up early with solar heat to save fire-heat. As it is desirable to harden the growth as much as possible, endeavour to imitate natural conditions by a lower temperature at night, so that whatever growth is made may be formed under those conditions of light and shade so essential to perfect development. Stir and water the surface of the beds, and keep up a growing temperature for the Autumn fruiters; give liquid manure to such as are swelling off: bottom heat for fruiters should still range about 85°.

### Vineries.

These in their various stages will require constant care; the very earliest, to be started in November, ought to be pruned at once and a thorough circulation of air allowed. Those which are to be started in January will at this time make great efforts to throw out an Autumn growth, which must be constantly checked by stopping; at the same time all the side laterals may be entirely removed, to throw more light upon the main leaves; the greatest enemy to the late houses carrying fruit is a damp atmosphere, so that in dull wet weather, fires must be lighted to dispel it, taking care to give plenty of air with it, or else the berries will shrivel: keep the mouldy berries constantly removed.

### Peach Houses.

Trees in the earliest house which have matured their wood should be divested of their foliage and loosened from the

trellis, and an early opportunity taken to dress them over with the mixture formerly recommended. The trees in the later houses will most likely be still green and perhaps making some attempts at late growth, which must be timely checked by stopping and keeping them dry at the roots. Cherries in pots for early forcing now standing plunged in the open quarters must be attended to at this season. Turn them out of the pots and shake off a good part of the old soil, and re-pot in sound fresh loam and re-plunge for a time; but before they are required for forcing, let them have a few weeks in a pit, that the buds may swell gradually. Now is a good time to take up and pot any promising young trees, full of buds, from the open quarters; such trees will often produce a better crop than those specially prepared for forcing. Figs now ripening their second crop must have no more water, both for the flavour of the fruit and that the trees may be encouraged to ripen off their wood.

### Pits and Frames.

Great care must be used to maintain a brisk bottom heat to Cucumbers in bearing and growing on for winter supply: if dependent on fermenting materials, keep a good supply always in a state of preparation, and never use it until well sweetened: keep also a good heat to late Melons, but let the atmosphere be dry, or the flavour will be poor: make new beds on the shelves of the Mushroom house, and spawn the beds made out of doors; prepare materials for future beds. Throw up a bed in readiness for Asparagus next month, if required thus early.

## OCTOBER.

### Kitchen Garden.

It will be as well to observe that the earliest Endive already tied up for blanching will not bear much frost, or a long continuance of wet weather; therefore when quite dry, let them be taken up and planted thickly in a frame or cold pit, and keep the lights always on in wet weather, but let them have abundance of air and free exposure on fine days: the same remarks will apply to late Autumn Lettuce, the season for which will be very much prolonged by the above routine. Plant out a good breadth of Lettuce in a warm and sheltered situation to stand through the winter; a row planted within a foot of the base of a south wall, will in ordinary seasons be ready for use a week or so before the others: the ground hitherto occupied by the main crops of Scarlet Runners will afford a suitable piece of ground on which to plant Carniflowers under handlights; let the ground be thoroughly trenched two spits deep, and as the operation proceeds, incorporate a liberal dressing of good rotten manure: level the surface and mark out beds of three feet wide for the glasses, and spaces of two feet wide to walk upon, for the purpose of giving air, dressing, &c.; from centre to centre of each glass four feet; put five plants to each glass, and look out for snails, which must be kept down by a mixture of soot, lime and ashes, strewn over dry. Take up and store Carrots and Red Beet; clear off and clean Asparagus beds: remove a part of the top soil and supply its place with well-rotted, rich manure. Persevere in trenching up all vacant ground to subject it to atmospheric influences.

### Fruit Garden.

The gathering in of Apples and Pears must now have daily attention; let the greatest care be taken in gathering all the choice sorts; as soon as they part from the stems freely, they are ready; if gathered before, they will shrivel: use them as carefully as eggs, and do not heap too many together, for the weight of the upper portion will bruise the lower, particularly in carrying along to the fruit-room, and all bruises, however slight, cause incipient decay. Finish the gathering of Cob Nuts, and store them in a dry, cool place. Also gather Walnuts as soon as they leave the husks pretty freely; if taken too soon, they often get discoloured in cleaning out. This is the best month to make new plantations of fruit-trees of all sorts; as soon as the leaves come off freely from the trees, they are ready to be lifted and transplanted immediately, and where previous directions have been attended to, the stations will all be ready and the operations may be performed without delay—to defer it until next month is to lose a season; trees carefully planted in October do not require to be headed back; but may be pruned precisely as though they had been planted twelve months.

### Flower Garden.

As the season of beauty is now over for most of the bedding plants, towards the middle of the month begin to take up Scarlet Geraniums, Heliotropes, and such like plants which are required for storing; take up as many as there can possibly be found room for, as old plants will always be found to flower earlier and more abundantly than young cutting plants; and if you can begin early enough, you will be able to head them down close, and after potting them in pots just large enough to hold the roots, and in light soil rather sandy than otherwise, put them into a large pit near the glass and give them for a short time a gentle heat to start them afresh, and then gradually expose them to harden, when they may be placed on shelves and other vacant places in the greenhouse. When all the principal beds are cleared, let them be immediately prepared for the reception of bulbous plants, such as Narcissus, Hyacinths, Turban Ranunculus and Tulips, and let the whole of them be edged with Crocus of various colours; some may also be filled with Spring-flowering herbaceous plants, such as Viola arborea, Primroses, Polyanthus, Alyssum, Iberis, Aubrietia, and Arabis, all of which will help to keep up a gay appearance in early Spring, and will mostly be over before the beds will be again required for bedding plants: some of the larger beds may be filled with nice dwarf plants of the hardier Evergreens; common Rhododendrons, which may be moved any day in the year, are very suitable for the purpose. Many kinds of herbaceous plants may now be taken up, divided, and replanted; it is far better than doing it in the Spring; amongst them do not forget those useful plants, the Double Rockets, both purple and white: they should be lifted annually about the first week in the month and replanted in fresh situations. Alterations which involve planting Trees and Shrubs should be set about vigorously: every Tree and Shrub planted this month will stand in a far better position as to its well-doing than those planted during any other month in the year, however carefully they may be tended.



### Plant Houses, Conservatory.

Previous to bringing in the plants which were turned out of this house in June, let the whole of the permanent plants have a thorough revision, some pruned and trained, some cut back, all thoroughly cleaned and put into first-rate condition, then fork over the borders, top-dress where necessary; then after top-dressing and cleaning the pots out of doors, place them in their allotted positions. Look to the state of the glass both of roof and sides, and let it be well cleaned: of course such things as painting and glazing have been properly attended to; for be assured, if houses drip to any extent, no choice plants can be preserved in them. *Chrysanthemums* will form the chief attraction in this structure for some time to come; the early varieties will now be sufficiently in flower and may be brought in at once, and the main stock should be removed under glass—an empty *Vinery* for example, and the best selected as they expand, may be brought into this house.

### Forcing House.

This will now be brought into requisition for many purposes, and will require to have a tolerably brisk heat kept up; some of the winter-blooming *Stove* plants will most likely require rather more heat and atmospheric moisture than may be wanted in the *Stove*; they may therefore be brought into bloom here, and then removed to the *Stove* or *Conservatory* as they may be required. Introduce a plant or two of the early forced *Camellias*, also of *Salvia splendens* and *gesneriflora*. The first batch of *Hyacinths*, *Narcissus*, and *Tulips*, as soon as the pots are filled with roots and the bulbs are started, may be placed on shelves near the glass in this structure.

### Stove.

The Spring-struck cuttings of *Eranthemum*, *Justicia*, *Manettia*, *Laetia*, *Begonia*, *Euphorbia*, and other winter-flowering plants recommended in previous directions to be grown on freely, will now be advancing towards bloom, and must be carefully tended, as they will be very useful; bring forward also the late-started *Gesnera zebrina*; and *Achimenes picta*, *Epiphyllum truncatum* and *Russellianum* will flower in this structure. Plants of all sorts which have matured their growth must be induced to go into a dormant state by a gradual withholding of water and placing them in the coolest part of the house. *Poinsettias* advancing into bloom will require a good supply of water, and *Eranthemums* may have a little liquid manure. Give air when possible, and keep the temperature by fire heat when necessary at about 70° by day, 50° to 60° by night.

### Orchid House.

Growing plants generally will still require to be supplied with water, in quantities proportioned to their state of growth; such as have attained maturity may be placed in the coolest situations, where they should have no water for some time; maintain a temperature of 70° by day and 60° by night—not more, or else it may induce some which ought to be dormant to hoot out again.

### Greenhouse.

Hard-wooded plants of all sorts must now be housed at once, taking care to put them in thorough good order before bringing them in. Give the winter-flowering *Heaths* all the encouragement possible to throw up a strong bloom, but be sure that they have a free circulation of air; such as have just past blooming should be well cut back and placed in the coolest part of the house, or in a pit so as to prevent them from making growth until the Spring. The different varieties of *Epacris* are just showing flower, and before they are too far advanced should be nicely trained out and top-dressed if necessary; as they are in full growth, they will require a free supply of water. Continue to pot-off the earliest sown seedling *Calceolarias*; those first potted should be rooted out and may be removed to a cold pit. Look over the old stock: such as are well rooted may have a shift, at the same time prune them into shape, and the pieces may be put in as cuttings if desirable: see that the drainage is perfect, as they will require a free supply of water now that their season of growth has come. See that the Autumn-struck cuttings of *Pelargoniums* are all potted off, and give them a slight bottom heat on a dung-bed to assist the rooting process; this young stock had better be grown for the present so as to come in for late blooming; older plants, which were headed back some time ago, should have made a good growth, and should be thrown into a comparatively dormant state by a partial withholding of water and a free circulation of air; those intended for very early forcing ought to be quite dormant, and should have only just water enough to prevent them from shriveling. Let the earliest *Cinerarias* have plenty of room to develop themselves and a free circulation of air; shift some more for successional blooming. Shake out, divide, and pot any old plants which have been kept back for late purposes, and pot-off early sown seedlings, and sow more seed both of *Cinerarias* and *Calceolarias* for late blooming. *Mignonette* for *Conservatory* purposes must be kept thin in the pots and abundantly supplied with air, as a close stagnant atmosphere will in a very short time render it worth no further trouble.

### Forcing Fruit Houses, Pineries.

Previous directions with regard to the necessary shiftings, watering, and the regulation of the bottom heat, will still be applicable, observing that both bottom and top heat must be gradually lowered as the days shorten and the external temperature becomes permanently lowered. Fruiting plants may be safely allowed six or eight degrees more than will be necessary for successions, say for fruiters 75° maximum, 64° minimum; and for successions 68° maximum and 57° minimum by night. Air must be freely admitted whenever the weather will permit; and in very cold weather put on a little extra fire heat so as to be able to give air; shut up as much solar heat as possible in the afternoons of bright days.

### Vineries.

Early vines intended to be started next month must be pruned immediately, and afterwards the stems painted over with the composition, as before advised; let the glass be thoroughly repaired and cleaned, and the walls done over with a wash of quick-lime and sulphur. If the borders are outside, see that there is a good supply of fermenting material in readiness towards the end of the month to be put on the border a week or two before the fires are started: the pruning of all the general crops of Vines, from which the fruit is cut, should be done this month, and even those on which the late fruit is hanging may be cut back to the fruit when the leaves turn colour and fall, and afterwards make it a rule to prune in every



shoot as the fruit is cut: the interior air of these houses in which the fruit is hanging must be kept very dry and cool, and when fire heat is necessary to ensure dryness, it must be accompanied with an abundance of air; go over the bunches twice a week and take out all berries showing signs of decay.

### Peach Houses.

If any of the trees are getting worn out or decayed, now is a good time to replace them with healthy young trees from the open walls; such as have been about five years in training are the best; and if very carefully lifted and replanted in fresh compost, a tolerable crop may be taken the first year. If Peaches are required to be started next month, let them be immediately pruned, dressed, and fastened to the trellis; the house also should be partially closed; let the walls be well washed with quick-lime and sulphur, the borders forked up and dressed with some fresh and rather rich compost; if they are very dry, give them a good soaking of water about the last week in the month. Remember that Peaches will not at any time submit to hard forcing, but much more so at this early season, therefore let the vital principle be very gradually excited. Strawberries in pots for forcing must now be placed in a situation where they can be protected from inclement weather. Continue to make fresh beds for Mushrooms, and spawn such as are ready; destroy wood-lice by pouring boiling water in the cracks; the temperature should range about 60° with a moist atmosphere.

### Pits and Frames.

Cucumbers for winter bearing must have a steady heat kept up both at bottom and top; keep the glass thoroughly clean, as they cannot afford to lose a ray of light now; the temperature may range from 65° by night to 85° by day; give them air when safe, but keep a canvas flap over the openings. Beds should now be thrown up, composed of mixed dung and tree leaves, for forcing Asparagus: be very sure not to put the roots in until the fierce heat has subsided: many a good frame of roots have been spoiled by being in too great a hurry. Sea Kale and Rhubarb may be taken up and forced, if required, and beds may also be covered, but it is quite early enough at present.

## NOVEMBER.

### Kitchen Garden.

About the 20th of this month is a good time to sow Peas—Carter's earliest and Sangster's No. 1; sow also Mazagan and long pod Beans; small Salading must now be sown under cover; and protection in sharp weather must be given to all late-sown Radish in order to prolong their season. Continue to take up and store in frames or sheds the later crops of Endive and Lettuce, also watch Cauliflower, Crange's and Snow's Winter Broccoli, and take them up and store in a shed as soon as they have formed heads fit for use. Cauliflower in frames and under hand-glasses must have abundance of air, and the surface occasionally stirred, and dress with soot and lime to keep down slugs. Lay down the heads of long-stalked Spring Broccoli facing the north. Dwarf varieties do not require laying, but they are much benefited by having partly decayed leaves laid about them. Protect the roots of Globe Artichokes with a good coating of half-rotten dung. Continue to earth-up Celery on every dry day. Keep the surface-soil stirred amongst the beds of Spinach, Lettuce, and Cabbage, and dress for slugs. Pot a few strong roots of Parsley for forcing, also plant some in a spare frame for use in bad weather. Keep up the successional coverings and forcing of Sea Kale and Rhubarb. Trench up all vacant plots of ground, leaving it as rough as possible.

### Fruit Garden.

The planting of Fruit Trees, if left thus long, should be finished off without delay, and the trees well-mulched; such as are planted against walls must be very loosely fastened, so that they may sink with the soil. The pruning of Pears, Plums, and Cherries should be commenced immediately that they are divested of their leaves. Now is also a good time to thin out overcrowded branches in the Orchard trees; scrape the moss from the stems and wash them over with quick-lime. Regulate the plantations of Raspberries, and plant new ones in well-manured ground.

### Flower Garden.

The bulbs of *Tigridia Pavonia* and *conchiflora* may now be lifted, and after being dried, stored away in sand secure from mice. Let the stems be cut off from the beds or patches of Japan Lilies, and then cover them with about 4 inches of decayed leaves: a similar covering should be put over the beds of *Alstromerias*. Dahlia roots will now be matured and may be carefully lifted, taking care to secure the labels to the roots with wire; lay them out to dry previous to storing them away for the winter. Plant Tulips, and finish off the planting of Turban *Ranunculus*, *Hyacinthus*, *Narcissus*, *Crocus*, *Jonquil*, and *Scilla*; choose the warmest and most sheltered situations for the *Hyacinthus*, and they will well repay any extra care. Put a little heap of finely sifted coal-ashes over plants of doubtful hardiness, such as *Salvia patens*, *Tagetes lucida*, and *Fuchsias*. Bedding plants in store pots will require constant attention paid to the removal of decayed foliage, and a free circulation of air: a shelf near the glass in a heated pit or Greenhouse is about the best place for them: great care must be exercised in watering, as they must neither be allowed to get dry, nor yet be saturated; when water is necessary, if the drainage is good, give them enough to wet the soil, and then wait till they require it again; never water at this season unless absolutely necessary. Continue to plant Roses of all the hardy sorts, and let them be well mulched with rotten manure after planting. Alterations in Pleasure-grounds must be vigorously followed up in favourable weather.

### Plant Houses, Conservatory.

Now that the cold and dull season out of doors has arrived, a gay and attractive appearance in this structure will be doubly appreciated, and should call for a corresponding exertion on the gardener's part to keep up as gay an appearance as the means at his command will accomplish; at present *Chrysanthemums* are the principal attraction: these will be succeeded by Chinese Primroses, Violets, Tea-scented Roses, Tree Carnations, and early *Cinerarias*, together with winter-flowering plants from

the Stove, such as *Poinsettia pulcherrima*, *Lueulia gratissima*, *Euphorbia jacquiniiflora*, *Gesnera zebrina* and *oblongata*, with many others. Towards the commencement of the new year, however, the great dependence will be on forced flowers; and where extreme gaiety is required, the great utility of the early forced Dutch Bulbs will be more apparent. Forced Camellias also are objects of great attraction; and a few plants from the early hybrids from *Rhododendron arboreum*, which will expand at Christmas with very little forcing indeed, will be truly gorgeous.

### Forcing House.

This indispensable adjunct to a gay Conservatory should now be pretty well filled with the different varieties of plants mentioned last month and the successional stock which will now require to be brought in; these will include Dutch Bulbs, *Dieleytra spectabilis*, *Forsythia viridissima*, *Weigela rosea*, *Deutzia gracilis*, *Rhododendrons*, *Azaleas*, *Camellias* and *Roses*; let the forcing-process be very gradual indeed; remember, if you push too hard and fast, the flowering will be weak and the flowers pale: let the bottom heat range about 70°.

### Stove.

Keep all the winter-flowering plants before specified in the most prominent and warmest situations; on the contrary, those which are dormant, or nearly so, must be kept as cool and dry as their safety will permit. Admit air freely when the weather is fine; and to enable you to give a portion every day, be the weather anything short of severe frost, light up the fires early in the morning and open the ventilators about ten, and close again at two, regulating the amount of air by external conditions.

### Orchid House.

The temperature in this structure must now be considerably lowered and a drier atmosphere maintained, to induce that state of rest in the plants which is necessary for the next two months at least. The temperature by day without sun-heat should be kept at about 60°; with sun-heat it may be allowed to rise to 70°, but not more; night temperature 55°. Blocks and baskets will not need to be dipped; but as they must not be allowed to get too dry, they may be slightly syringed once a week.

### Greenhouse.

The general stock of hard-wooded plants will now be comfortably housed and in a comparatively dormant state; and the principal attention they will require will be to give an abundant circulation of air and to be extremely particular as to the watering: more hard-wooded greenhouse plants die from injudicious watering than from any other cause; when the plant requires it, give enough to soak the ball and have done with it; but at the same time ascertain that the water percolates away freely. Winter-flowering Heaths, *Eranthis*, some *Acacias*, and *Correias* will of course require a more liberal treatment and the best situations; *Pelargoniums* will now require a considerable degree of care: guard well against damp and spot, remove all decaying foliage; and if the branches are too thick, thin them out to admit air. Look out for worms in the pots; if you cannot catch them without disturbing the balls, give some lime-water, which will move the worms and do the plants no harm: shifting must be attended to; but that will depend upon the purpose for which the plants are grown: if for early forcing, they should now have a final shift; but for later purposes endeavour at present to keep them dormant. *Cinerarias* should have every encouragement to promote free growth, as they are now in full action, and a check would be injurious to the flowering. Mildew is often prevalent during the sluggish atmosphere of this month, and must be kept under by frequent dustings with flour of sulphur; remove decayed leaves, and let the plants have a free circulation of air whenever possible. *Calceolarias* in their several stages will require attention; old plants shifted last month will require plenty of room and a free circulation of air; young seedling plants potted off from the earliest sowings must have a good shift when the pots are full of roots; later successions should be potted off from the store-pans, and a good supply pricked out from the seedling pots for Spring purposes. Persevere in fumigation; the destruction of noxious insects in plant-growing is absolutely necessary for success. The roots of *Lilium lancifolium album*, *rubrum*, *punctatum*, *macranthum*, and *eximium*, all of which are among the finest Conservatory ornaments we possess, should now be purchased and potted: make use of good-sized pots, say eleven-inch pots for four roots, and larger in proportion if necessary. Let them be covered with four inches of soil; and for the present the surface of the soil should be at least three inches below the rim of the pot: see that the drainage is all right, and place them in a cold pit and give them no water until the growth of the flower-stems pushes through the soil. *Lachenalias* which are started should be kept near the glass. *Cyclamens*, which are worthy every attention, are now making growth, and should have a light and airy situation on the front stage; be careful in watering, and avoid a damp sluggish atmosphere. The *Cactus* tribe and *Kalanchoes* must now be kept perfectly dry.

### Forcing Fruit Houses, Pineries.

Make use of every possible means to mature the late growth of Pines intended for next year's fruiting; to further this process, let them have a drier atmosphere, and a free circulation of air when the weather will permit; the range of temperature must be lowered to about the standard for the next two months. Winter-fruiting plants now swelling must of course have a more liberal treatment by affording a higher temperature with a moister atmosphere, and occasional supplies of tepid manure water.

### Vineries.

Continue to make fires occasionally for the preservation of the late grapes, give air freely at the same time, and keep all the mouldy berries cut out. In the early Vineries just started, it is a good thing to introduce a body of fermenting materials, if possible, which should be watered and frequently turned about; this will produce a genial moisture in the atmosphere, which is very grateful to the vines, and will assist them to break very regularly: let fire heat be applied with caution, as, until they have well broken, the night temperature ought not to exceed 50°: the day temperature will be much influenced by external conditions; at present, in the absence of sun, 55° is a safe range.

### Peach House.

The earliest house may now be closed and brought under the routine of operations as directed in the early months of

the year; tying them to the trellis need not be commenced until the house is closed, at which time retouch any places not covered with the composition: let them be very gradually excited: 40° by night is the best at present. See that Cherries, Peaches, Figs, and other fruit-trees in pots are well protected from frost, and the tops secured from breakage by high winds.

### Pits and Frames.

It will be necessary to keep up the bottom heat to Cucumbers at a range of 80°, two or three degrees higher rather than lower; and if the heat is produced by dung, see that the linings are kept well topped up; and should the top heat rise above 70°, leave a little air on at night. Start another bed of Asparagus for succession, also bring forward another supply of Sea Kale and Rhubarb, either by taking up the roots and placing them in the Mushroom-house, or else by covering the beds out of doors with dung and leaves; in the latter case do not lay it on too thickly, or there will be danger of burning the crowns or drawing it up very weakly. Let there be a good supply of fermenting materials always kept in readiness for contingences.

## DECEMBER.

### Kitchen Garden.

Take advantage of frosty weather to wheel out manure to all parts of the garden where it is likely to be wanted; make good-sized heaps in places where it will be at hand to spread out when the crops are cleared off; but on vacant ground it may, of course, be spread out and trenched in at once. Select the plots of ground you intend for Parsnips, Onions, and Carrots next year, and trench them up at once in as rough a state as possible, that the frost may penetrate. Continue to store Endive and Lettuce, and protect Celery in severe weather. If the weather is mild, you may still look out for Cauliflowers and Grange's and Snow's Broccoli, and store them away as they become ready. Mulch over the beds of Rhubarb, also of Globe Artichokes; stir the surface of the ground amongst advancing crops whenever the weather will admit; sow small saladings under cover twice a week: take up Chicory roots from the May sowing and put them in a corner of the Mushroom House, and the leaves will make a very wholesome addition to the salads at this season.

### Fruit Garden.

It is presumed that the planting of fruit trees of all sorts is now entirely finished off, and the trees properly secured and mulched for protection during the Winter, and that the pruning and nailing of all the hardier sorts of fruit trees is being proceeded with whenever the weather is fine enough: do not attempt to prune fruit trees in frosty weather; it is often very injurious to the shoots, causing them to die back; we would most strongly recommend that the *stems* of standard Peaches, Nectarines, and Apricots against the walls should be well bound round with stout hay-bands before the ascending sap is on the move. When Gooseberry and Currant Trees have been pruned, choose a wet day, and dust the trees well over with quick-lime; the ground may then be manured and forked over, unless it is desirable, on account of the Gooseberry caterpillar, to remove the top soil completely away as before recommended, which operation is best performed when there is frost sufficient to cake the surface, say two inches; the tender sorts of Strawberries, particularly the British Queen, will be benefited by a light covering of brake during the prevalence of very severe weather: do not forget former directions with regard to the Orchard Trees; for if they are not done at this season, they will most probably be forgotten altogether.

### Flower Garden.

Beds of Roses, both Standards and Dwarfs, should be well dressed with good decomposed stable manure; tenderer varieties in open beds, particularly Tea-scented, may with great advantage be carefully lifted and planted very thickly in trenches in a sheltered place, where they can be well protected in hard weather. See that beds of Foxias, Gladioli and Lilies are well protected by a covering of half-decayed leaves. Dust over the beds and patches of Hardy Annuals with quick-lime, soot, and wood-ashes in a dry state; slugs are apt to be very destructive to them in mild weather. Most of the deciduous trees will now have shed their leaves; and therefore the whole of the lawns should be thoroughly swept, the borders well raked over, and the grass and gravel kept constantly well rolled; trench up all vacant beds, and leave them rough, to become well frosted; choice and tender herbaceous plants should also be protected from severe frost by a mulching of half-decayed leaves: now is a good time to see if the drainage of the garden is perfect; if not, let it be seen to at once, for the frost will always have more effect upon plants where the drainage is imperfect. Do not neglect former directions with regard to the store-pots of bedding-plants: the next six weeks is a critical time for them; after that time, potting off will again commence.

### Plant Houses, Conservatory.

As this structure will probably be very much visited at this dull season of the year, extra care should be taken to keep the interior in a comfortable state, both as regards temperature and the absence of any dampness about the floors and pathways; watering should, at this season, be all completed before now, and the water which percolates through the pots wiped away early. In order to make the enjoyment of these houses more perfect, pay constant attention to those little things which constitute the perfection of neatness, such as picking off decayed foliage, pulling small weeds from the surface of the pots, and, by carefully stirring, give those surfaces a fresh and neat appearance, and occasionally rake over the borders with a sharp-toothed iron rake. Camellias in pots from the Forcing-House may have a little tepid manure water; but do not overdo it: the permanent plants in the borders may be so assisted as soon as the buds begin to swell off fast. Cut back and put in fresh plants of all the late-flowering Climbers, such as Passiflora, Lapageria rosea, and Plumbago capensis. Fuchsia dominicana will now be a conspicuous plant at this house. Train out Kennedya's and keep them very clean, also Tropaeolums, and let them have a free circulation of air; be careful not to over-water them.

### Forcing House.

Upon the good management of this structure very much of the gay appearance of the Conservatory for the next two months



at least will depend. As the earliest introduced plants are now in an advanced state, another batch should be brought in for succession, and amongst them the most forward plants of the Indian Azaleas may be more liberally introduced; a more useful plant for forcing than the Indian Azalea cannot be, as it not only makes a very fine display, but also remains in bloom a long time. Introduce more pots of *Deutzia gracilis* and *scabra*, also *Weigela rosea*, *Dielytra spectabilis*, Lilies of the Valley, Roses, Pinks and Sweet Williams; if required, also Lilacs, another good batch of Dutch Bulbs, and more Rhododendrons.

#### Stove.

If these are cultivated to any extent and a good supply of bloom is generally looked for, it will be necessary to look to such plants as will be required for early blooming; those started early last year will now be showing signs of a renewed growth after their season of rest, such for example as the *Gloxinias* and *Gesneras*, which may be shaken out and re-potted; give them very little water until they have made a good start, when they may have warmer places and the needful supply. A few *Achimenes* may also be started if desired, but it is quite early enough at present. A few of the most likely-looking bulbs of *Amaryllis* may be re-potted or top-dressed as occasion requires, and plunged in a moderate bottom heat. *Begonias* should be shaken out and re-potted and brought forward slowly; a few *Gardenias* may be started; and if any of the *Franciscas* are showing signs of growth, they may be encouraged by a warmer situation; and when growth is making progress, shake out a part of the old soil and re-pot them, water moderately at first, and increase the temperature with the growth.

#### Orchid House.

As most of these should still be in a dormant state, the operations connected with them will not differ much from the former routine; a few, however, will no doubt be showing signs of renewed activity, and this must not be checked; let such plants have the warmest situations, and gradually increase the quantity of water. Use every exertion to destroy insects; it will save much trouble and vexation by-and-by. Cock-roaches are often brought in with imported plants; they are very destructive and should be exterminated.

#### Greenhouse.

Omit no opportunity to keep up a free circulation of air amongst Heaths and hard-wooded plants generally; apply sulphur to Heaths as soon as mildew appears, and continue as before to pay great attention to watering; do not let them get dry, but yet, in severe weather, lean rather to the dry side than over-water. *Gardonia Hookeri* and *Crowia saligna* should be removed into a higher temperature about this time: give them a shift into a larger pot when well started. Now is a good time to shift the varieties of *Kalosanthis*, for if left until late in Spring, the general result is a fine growth, but no bloom: keep them very short of water for some time. *Pelargoniums* must be kept near the glass, but avoid draughts of cold wind; the stock required for forcing, and also very large specimens, will of course be in a more excited state of growth, and must have more water and a closer and warmer atmosphere. Plants for forcing may be top-dressed, but not shifted any more; on the contrary, growing specimen plants should be shifted as often as they require it, until they have reached their blooming pots. Forward *Cinerarias* should now be put into their blooming pots, successional plants shifted, and more potted from seedlings; the same may be said of the *Calceolarias*, which are now in very active growth; attend well to fumigation, picking off decayed foliage, and admitting air when the weather is favourable. As the *Chrysanthemums* go out of flower, let them have the shelter of a cold pit or other temporary protection, but harden them as much as possible, so as to get good cuttings.

#### Forcing Fruit Houses, Pineries.

The temperature and general management of the whole stock will be much the same as directed last month; let them be kept as dry as is consistent with safety, and neglect no opportunity when the weather is favourable of giving them a supply of fresh air.

#### Vineries.

The temperature may take a range of 55° by night, with a slight increase towards the end of the month; but do not push too hard until after the sun begins to increase in strength; change the internal air as often as the weather will permit.

#### Peach House.

Maintain a healthy moist atmosphere in the early house, but admit air freely when possible, and do not exceed 45° at night. Prepare later houses for starting next month. See that frost is excluded from Figs in houses and pots, or the embryo figs will be very much checked and the chance of an early crop very much reduced. Pot plants should be shifted, if necessary, whilst dormant. The first batch of Strawberries, Keene's Seedling and Black Prince, may be put into the Vineries or Peach House a week or so before they are started, so that they may be gradually excited. A portion may also be started in a frame on a mild bottom heat.

#### Pits and Frames.

The present is about the time to follow up the old practice of making up a good bed of well-fermented dung for a single light box, in which to rear the seedling Cucumbers for early purposes. Carter's Champion is the best: take care that there is no lack of prepared fermenting materials for topping up the linings of Cucumbers in bearing, for succession in Pine Pits, and all the purposes for which it is required. Lay out some Early Frame Potatoes in a gentle heat to sprout, for planting early next month, which is a superior plan to planting them without sprouting, saving time and trouble. Bring forward successional beds of Asparagus, also Sea Kale and Rhubarb; sow Radishes, Wood's frame, in a frame on a gentle heat.



## PART III.

### CALENDAR OF FARM OPERATIONS.

#### JANUARY.

The *horse-labour* in this month consists for the most part of carrying corn to market and hauling manure to the fields where it is next Spring to be applied. There is also the carriage of cattle food and of purchased manures for market, of lime and marl to the fields to be clayed or limed, of tiles to the fields being drained, and of road material where necessary. The land may occasionally be fit for tillage operations, and then ploughing proceeds, in the case of grass and clover leas, for wheat or oats, in the case of stubble land if any yet remains unturned, for root crops or for beans.

The *hand-labour* of the month includes the thrashing and preparation of grain for market, the loading and unloading of all kinds of material carried, the attendance upon live stock, road and fence making and mending, land drainage, and the preparation of composts for application later in the season. Many of these operations are continued on from the commencement of the winter until its close. Some of them are taken up from previous months of the last year; and to these we refer for further discussion of them.

**Compost Manure.**—The preparation of manure for use during the season of vegetable growth is one great business of the winter season. This includes the purchase of fertilizers, both soluble salts, such as those of ammonia and the nitrates of potash and soda, for application as top dressing to the growing crops in April and May, and the less soluble fertilizers, as guano, superphosphate and bone-dust, which may be applied early in the season with less risk of waste and more probability of being used by the plants as soon as ready for absorption. It also includes the manufacture of heaps of fertilizing matter on the farm, whether of farmyard dung exclusively, or of dung and the various vegetable and mineral auxiliary manures which the farm affords.

First, of those which are properly the compost heaps of the farm:—What a number of things may be turned to good account is plain from the mere list of the animal, vegetable, and mineral substances existing on the farm, of some use as manures. There are thus, roots, hedge-clippings, fallen leaves, weeds, couch-grass, fern-leaves, moss, river- and sea-weeds, sods and turf from ditches, lanes and hedge-rows, sawdust, spent bark and peats when properly decomposed, among vegetable substances. Many of them contain their nitrogenous part in a higher proportion than the straw of grain, and several of them are equally rich in the mineral constituents of plants. Besides these vegetable substances there is the animal waste, sometimes accessible on a farm, such as carcasses, blood, bones, fat, blubber, waste fish, sprats, mussels, and other shell-fish, which are in some places and sometimes to be had. They all contain a large proportion of nitrogen, much more, indeed, than ordinary farmyard dung. Mineral substances are also available, such as earth from ledges, scourings of ditches, banks, ponds, road-scrappings, and various marls, chalk, and sometimes beds containing a considerable proportion of phosphate of lime. Refuse substances of trade are also sometimes available, and equal in their fertilizing effects to any known manure; such are woollen rags, shoddy, soapers' waste, glue refuse, refuse of starch- and sugar-works, of provision-curers, slaughter-houses, curriers, &c.

Any of these substances which contain the food of plants are of course applicable with good effect as a manure; but besides their direct contribution of matter to be built up in the growing crop, their influence on the texture of the soil to which they are to be applied has to be considered; and hence, when applying mineral matter we improve light soils by the use of clayey composts, and stiff soils by the use of light and organic composts. It is, however, the advantage of the compost form of manure, that the effect produced by its application is greater than the sum of the effects which would have been produced by the separate use of its several ingredients. And hence, in making our composts we use such ingredients as will improve and act on one another in the heap. Many of the ingredients named require a complete disintegration, in order to their ferti-

lizing character, and hence lime, which facilitates their decomposition, is a very important ingredient in most composts. Peat, for instance, is a substance which can be brought into use by the aid of lime, and composts of peat thus prepared, with the addition of farm dung, are often a most successful method of eking out and increasing the fertilizing resources of the farm. In practice, a half-charred mass of rough vegetable matter if it had been originally woody, or a half-rotten heap of lime, or even mere mould, with such matter, if it have been originally succulent, may well be made the foundation and the top layer of heaps containing rotten flesh or blubber, or mere dung, to be ultimately well mixed up together and used, as the dung-heap usually is, for the green crops of the farm. If the land be light or spongy it is well to mix as large a proportion of clay or marly earth as possible, for the sake of its influence on the texture of the land.

It must, however, be added, that it is not to be recommended that much time be devoted to compost-making on the farm. Such manures are bulky, and involve great labour of cartage, and the system now is to spend money rather on the direct purchase of cattle food or portable manure, than on the labour of developing the less immediate home resources of the farm. The use of many of these ingredients, as peat, first well dried and broken, sawdust, and even spent bark (which is best half charred before use), is best confined to their employment as litter or in the yards, where they may suck up liquid fertilizers, otherwise liable to waste. If laid up in heaps they should be soaked with gas-water liquid manure, or other easily fermentable substances by which they are reduced into a more soluble condition. If lime be mixed with them, its caustic effect will be increased by the addition of a certain proportion of common salt.

2. Of Farmyard dung:—This, as it consists specially of what has already grown out of the soil, acts as a fertilizer by restoring to the land ingredients taken thence, together with matters drawn also from the air, which shall thus feed another crop of plants. It is well, in order to check waste of manure on the farm, to have a distinct impression of the quantitative nature of the fertility of the soil. Given a suitable climate and suitable plants, it depends entirely on the presence in sufficient quantity of those particular atoms which the plants invigorated by that climate need for the erection of their structures. It is often declared that the rain washes the valuable *quality* out of the dung, and that exposure to air induces the loss of its valuable *qualities*. Now, the quality of a manure depends altogether on that of its constituent particles. It is because ammonia contains nitrogen in a form in which plants can use it, that it is a useful element of the dung-heap, and to speak of exposure as rendering dung liable to the loss of much of its valuable qualities, just means that it is liable to the loss of its ammonia. So with the phosphates and other soluble salts. Dung never loses quality except by losing quantity. They are actual material particles, possessing weight, which

fly from it or which flow from it; and the distinct and definite idea that so much matter has gone by mismanagement, which if built into the plants would have added to their weight, is one which it is well to have fixed in the mind. The loss of so-called quality might be borne under the idea that by skilful management its lost character might be restored: the loss of so much quantity is absolute and irreparable; as entire as if the money value of the quantity in question had been thrown into the sea. The waste to which farmyard dung is liable arises chiefly out of the mode of its manufacture. For the sake of obtaining the dung in a condition in which it contains ready-made the food of plants, and in which it may be easily mixed with the soil, it is fermented in large heaps, and these are generally open to the air and rain. The consequence is, that the products of the fermentation which ensues escape into the air or are washed out into the ditch, and in either case are lost to the farmer. The remedy is either to plough the manure under as soon as made, *i.e.* as soon as the litter is used and soiled, or to gather it in heaps from day to day as made, placing it on a layer of absorbent earth, and covering it with a layer of earth in a ridge-form, which shall shed the rain and suck up all exhalations. Dr. Voelcker tells us indeed that it is much more by the washing of rain-water than by the escape of the gaseous products of fermentation that manure suffers loss, and that no better plan exists of applying dung to the land than spreading it over the surface as soon as made, whether it be ploughed under at once or not. When freshly made it contains but little matter capable of loss by exposure, or by washing, but this loss becomes possible and actual as it rots in heaps together. The inference as to top-dressing of recent manure during the winter months, to be ploughed under as the weather permits, before spring time, is one which ought to be fully tested in the field.

The use of an absorbent and disinfectant substance which shall fix the volatile products of fermentation and at the same time hinder the fouling of the air of our stables and feeding-houses, would be almost done away with, if the practice should prevail of ploughing in or applying dung as soon as made; nevertheless for a long time to come, indeed always as regards a considerable portion of the manure of the farm, dung will be rotted in heaps, and the means of retaining and fixing the products of its fermentation will be used. Earth covering the heap is an efficient strong box for the vapour of a rotting dung-heap. Charcoal, which has been highly spoken of for this use, is a good disinfectant; but this is by oxidizing, which means burning up the emanations which we wish to retain. To cover the dung-heap with charcoal would indeed remove all smell, but this it would do by destroying or converting into substances unavailable for plants the things we wish to use. Gypsum is good as a manure in itself, but comparatively inefficient as a fixer of ammonia, owing to its comparative insolubility. Chloride of zinc (Sir W. Burnett's disinfectant) is costly and poisonous. Sulphate of iron would be a good fixer of ammonia, owing to the sulphuric acid it supplies, but its iron would convert the phosphates into an insoluble and useless salt. Common salt has some powers as a fixer of ammonia, but these depend upon affinities so nearly balanced as to render them neither permanent nor long-lived. Sulphuric acid would indeed be a good fixer of ammonia, but it is entirely unfitted, by its corrosive properties, for use near animals. Mr. McDougall of Manchester suggests the alkaline or lime salts of carbolic acid, a product of the distillation of coal, as an efficient and harmless fixer of ammonia, and disinfectant, and there exist testimonials in its favour. As to the quantity of farm manure possible on a farm, the following data may assist an estimate. On Whitfield farm, Gloucestershire (150 acres of grain crop, 30 acres of clover, and 60 acres of green crop), upwards of 2000 cubic yards of manure were made annually, or probably about 1200 or 1300 tons, and this would represent 1 ton of straw as making about 4 tons of dung. This was when large quantities of green crops

were grown, probably 1000 to 1200 tons of roots each year. Again, as so many separate facts bearing on this question, it may be added (1) that an ox fed on green food and hay and straw will yield about one cwt. of excrement, liquid and solid, daily. Mr. Haxton, in the 'Cyclopædia of Agriculture,' calculates that a stall-fed ox will yield of solid dung during—

	tons	cwt.	qrs.	lbs.
210 days 55 lbs. a day .....	5	3	0	24
155 days 41 lbs. a day .....	2	17	1	20
Add litter 14 lbs. a day .....	2	5	2	14
Urine absorbed by litter 22½ lbs. ....	3	13	1	8

In all, per annum ..... 13 19 2 10

But besides this a lot of urine runs to waste, making altogether probably about 20 tons per ox, stall-fed, throughout the year. If the ox be stall-fed rather more litter is needed, and all the urine is absorbed by it, so that the quantity is not only greater, but its quality is better. On this point Dr. Voelcker's figures may be quoted. He found box manure to contain 71 per cent. of water, and nitrogen equal to 2.37 per cent. of ammonia, when yard manure contained 1.4 per cent. of nitrogen, equal to 1.7 of ammonia. Box manure contained also .3 per cent., one half more, of phosphoric acid and 2 per cent. of potash and soda—more than twice as much as farmyard dung.

(2) The horse voids about 30 lbs. weight of dung daily. It loses more by perspiration, and is generally fed on drier food than the ox, so that there is less urine and the dung is drier. Mr. Haxton calculates its annual yield at about 11 tons:—Much however of it is wasted on the roads when it is out at work. (3) Of pigs and sheep it may be estimated that eight or ten make as much manure as a full-grown ox, consuming as they do about the same quantity of food. (4) If 600 acres be cultivated on a six-field system, it may be supposed to yield per annum 600 tons of dry fodder and litter, and 2500 tons of green and succulent food; and the produce of manure may be estimated thus:—The winter food will keep 120 beasts or 1000 sheep, yielding 1600 tons of farm dung during the winter months. The summer stall feeding and the stable may be expected to yield other 400 tons, or 2000 tons in all. How much this may be reduced in quantity and how much in quality by mismanagement, Dr. Voelcker has shown in his illustration of the superiority of winter top dressings and the application of fresh-made manure or of box feeding, and manure-making under cover, over the ordinary method of treating straw down in yards, and afterwards "making" the dung in exposed and rapidly fermenting heaps.

3. Of Artificial Manures:—The use of these as auxiliaries even in the case of farms, where the yard and box dung is well managed and enriched by the consumption of large quantities of purchased cattle food, is now an almost universal practice. Guano, 2 or 3 cwt. per acre, applied to grain crops, root crops, and grass lands. Bones and sulphuric acid or superphosphate of lime, applied to Turnips, Swedes, Mangold Wurzel, at the rate of 3 or 4 cwt. per acre, and in smaller proportion with good effect to late-sown barley. Sulphate of ammonia and nitrate of soda, 1½ or 2 cwt. per acre, applied to grain crops and grasses. Common salt 2 or 3 cwt. per acre, applied to grain crops on straw-growing soils, also to Mangold Wurzel: these are among the most important and generally used. As to the period of applying them, the rule would be to put the very soluble salts to the land when the plants are actually growing, and therefore ready at once to take them up; thus ammoniacal and soda salts should be put on in wet weather, during April, on the growing wheat. Bone-dust may be applied in Autumn on pastures, and any time before seed-time for turnips. Superphosphate or Guano may be well mixed with the soil just at the time of sowing the seed.

It is now the fashion to look upon ammonia and phosphoric acid as the essential elements of manure. Their special importance, however, arises out of their being the elements generally present in the least quantity in the



soil, in proportion to the demand made on them by a large crop, but they are not more essential than the other elements of the growing plants also present in most manures. The fact is, that the element present in the smallest quantity (in *minimo*) rules the growth of the crops, and the supply of *it*, whatever it may be, is therefore the most needed and most efficient on the growth of the crop; and as phosphoric acid and ammonia are practically, in general, the bodies present in *minimo* in the soil, their addition in the manure is most generally sought after. And so guano, superphosphate, &c., are estimated according to the quantity of these ingredients which they contain. The ammonia present in them is generally valued at £50 to £60 a ton, the natural phosphate at £7 or £8 a ton, the soluble phosphate at £25 to £30 a ton; and so their value comes out at £13 to £14 a ton for good guano, and £6 to £8 for good superphosphate.

Guano is used for all sorts of crops; chiefly grain crops, however, in England, where superphosphate is chiefly used for Turnips, its weight per bushel is a fair test of its purity. If it exceeds 70 lbs a bushel, it is generally adulterated, the things used for this purpose, loam, &c., being heavier than the natural manure. But for the tests of purity of the several fertilizers of the market, we must refer the reader to the agricultural chemist. His safety is to be secured (1) by dealing with men of established reputation as manure merchants, (2) by retaining a sealed and authenticated sample of the article bought, for analysis, if the result of its application be suspicious, and (3) by sending this sample for analysis to some chemist, whose report would lead a jury to justify a claim for damages in case the crop has failed, because the manure was not what it was declared to be.

## FEBRUARY.

The *horse-labour* of this month includes the conclusion of wheat-sowing (see October), and preparation of land for Beans and Peas, and putting in the seed. Parsnip may be sown now on land properly tilled, deeply cultivated, and manured in Autumn. Land may be ploughed for the earlier-sown green-crops, if it was not prepared for them in Autumn. The earing of grain to market, and of food, and seeds, and manure for market, also of manure to fields, continues at times when field cultivation cannot proceed.

The *hand-labour* of the month includes seed operations and preparations for the sowing of the crops already named; work in moving manures, barn-work, attendance on the live stock of the farm.

**Purchase of Seeds.**—All spring-sown seeds may as well be purchased now. Turnips, about 3 lbs. per acre; Mangold Wurzel, about 4 to 6 lbs. per acre; Carrots, Parsnip, about 7 lbs. per acre each; Kold Rabi, 4 lbs. per acre, if at once drilled in rows, or 1 lb. an acre if sown in a bed and transplanted; Cabbages about the same, to be sown in a bed and transplanted; Clover, 12 to 18 lbs. per acre; Grasses, 2 to 3 bushels per acre, are the usual quantities. If special care is deemed desirable, procure small samples and sow them in flower-pots, and so judge of the vitality of what you purchase. When seeds are dear, the result is caused through the total or partial failure of the past season's seed crops, and in consequence the germinating powers are not on the average so good as may be expected in favourable seasons, BUT STILL, IF UNADULTERATED, THEY ARE MORE THAN SUFFICIENT TO ENSURE A GOOD CROP.

The purchaser cannot be too careful where he deals, because it is well known that when the supply is scarcely sufficient to meet the demand, dishonest dealers will be found who will adulterate the seeds for the purpose of being able to undersell those of the Trade who do not resort to these practices.

Therefore it specially behoves the purchaser to give a fair value for the seeds he requires, and to deal with a Seedsman of established reputation.

**The Culture of the Parsnip.**—Parsnips grow best on deep loamy soils. This crop should come after a Grain crop,—the stubble being well cleaned in Autumn, and deeply ploughed, and well manured then. In February, harrow down the land, and sow the seed 7 lbs. per acre, mixed with two bushels of sand, and sown by the Suffolk drill, in rows about 15 inches apart. The large Jersey Parsnip is the best variety of Cattle Parsnip, and there is no better food to stearn and mingle with hay-chaff for a winter cow or for pigs. Eight to twelve tons are obtainable per acre; they are forked up in November, and may be pitted like potatoes. They should be singled out and kept clean by the hand-hoe during Summer, being left at intervals of about 6 inches to the row. If the land is full of small weeds it may be well to sow a few Turnip-seeds or Barley-seeds with the Parsnip-seed, which, springing first, will show the position of the future row, and so enable an earlier hoeing of the land. Carrots are, however, in general preferable as a farm crop to Parsnips, involving

less labour and annoyance, and yielding a crop, which, if it be not quite so good a food per ton, is a better crop per acre.

**Cultivation of the Bean.**—It grows best on what may be still called Wheat soils. Though Wheat is now grown everywhere, Wheat and Bean soils are the stiffer class of soils; though, as Wheat is now grown on light land, so Beans, also, and Winter Beans especially, are cultivable on sandy land. Among the sorts are the common Scotch—hardy, prolific, long-strawed, and weighing about 600 to the lb.; the Common Tick, shorter strawed, and not so large, about 900 grains per lb.; the Heligoland, hardy, earlier than the Scotch, a small round seed, 1200 per lb.; the Winter Field Bean, the hardiest of any, as small as the last, but not so round, earliest at harvest time, and so, least liable to be attacked by the black plant-louse, of very short straw, and heavier per bushel than any other sort, sometimes, indeed, weighing 70 lbs. per bushel. There are many long-podded Beans which are adapted for field as well as garden, and have larger grains, but are less hardy. Winter Beans may be sown in October, on a Wheat stubble, pared and cleaned, grubbed or scarified, manured with 20 or 30 cubic yards of dung per acre, spread and ploughed in; and the land, being well harrowed, receives the seed, 2 bushels per acre, by means of the Suffolk drill, sown in rows 18 or 24 inches apart, so as to allow of horse-hoeing in the Spring. The levers of the drill should be heavily weighted, so as to bury the seed thoroughly. The plants come up before Winter, stand the frost well, are horse- and hand-hoed in Spring, come to flower in May, and to maturity generally by the end of July, in time to enable a tolerably efficient cultivation of the land before Wheat is sown upon it.

The cultivation of Spring-sown Beans may be the same as this, allowing for the different seed-time; or they may be sown above the manure, in drills 2 feet wide, very much as Potatoes are planted, being afterwards horse-hoed and cultivated like the Winter sort; or they may be ploughed in, being sown by the Bean harrow in every second or third furrow, as the manure is being ploughed under. The quantity of seed may be from 2 to 3 bushels per acre, according to the size of the seed and the width of the rows. The best seed-time is the earliest Spring-time, when the land is fit for cultivation; the crop may be from 30 to 40 bushels per acre. The harvesting is by means of a heavy hook or

the reaping machine. The crop is tied in sheaves with straw bands, and carried to rick after exposure enough to dry it.

**Culture of the Pea.**—The Pea prefers a lighter soil than the Bean. The sorts commonly grown are the Common Grey, a late, long-podded, prolific, strawy sort; the Early Grey Warwick, early, small, short-strawed; Early Charlton, also grown in gardens, and much cultivated for the supply of the London market. It is sown in January, on a well-cultivated and manured stubble which has received thorough Autumn culture. After being thus prepared, the land is ribbed in shallow drills, at intervals of 2 feet; and 3 bushels per acre are sown in the drills, and

covered by the harrow or the hand-hoe. The intervals enable horse-hoeing.

In common practice, Peas are sown by the Suffolk drill, on the flat with heavily-loaded coulter, in rows about 15 to 18 inches apart. They are hand-hoed and horse-hoed, and ultimately partly covered on one side by plough or hand-hoe, with earth-land over the lower part of their stem, so as to throw the rows all one way. The common seed-time is the end of February. When ripe, in July, they are cut with hook and crook, or with scythe, being gathered into bundles by the mode of cutting. These are turned once or twice, and carried to rick. The produce may be from 24 to 36 bushels per acre.

## MARCH.

The operations of this month include the sowing of Spring Wheat, of Oats and Barley, of Parsnips (if that is not already done), of Grass and Clover-seeds, of Spring Vetches, of Peas and Beans (if not already finished); also the planting of Potatoes.

The *horse-labour* accordingly includes the ploughings, harrowings, and carriage involved in all these operations; also rolling of Wheats, Old Clovers, and Grass-lands.

*Hand-labour* is directed to all these seed-operations, to the gathering of weeds and stones, to the management of the manure (filling it into carts, &c.), and, as before, to barn-work and attendance on live stock.

**The Culture of the Oat.**—Oats occupy one-quarter of the arable land of Scotland, and about one-tenth of the arable-land of England. This crop is of greater importance than even Wheat in the northern part of the island, in the proportion in which 32,000,000 bushels of Oats are worth more than 7,000,000 bushels of Wheat.

This crop is grown on all sorts of soils, from clay to peat. It generally succeeds Grass and Clover in Scotland; in England it is taken after Grass, and green crops of all kinds. In Scotland the ploughing for Oats is often Winter's work, and the seed is sown broadcast in March or even earlier,—4 to even 6 or 7 bushels of seed being used per acre. It should be sown with the Suffolk drill if the land be not so ploughed as to leave well-defined furrows into which the seed will fall, and so come up in rows. Oats should be cut before being thoroughly ripe, or they will be apt to shed their seed with the wind. Oat-straw, by itself, is good fodder,—Barley-straw being preferred to it only for the Clover which the latter generally contains.

There is a great number of sorts of Oats in cultivation, some of which we may just name:—

Potato Oat, of good quality, rather short-strawed, productive, but more liable to disease than other kinds; Sandy Oats, a free grower, tall and still, not of such good quality as the Potato sort, but harder and rather earlier; Hopetown Oats are a productive, bulky, strawy, large-seeded kind; Early Angus Oat, short-strawed, productive, and adapted for rich land; Poland, the earliest and shortest-strawed of our sorts of Oat, fairly productive, well adapted for rich land; Tartarian (black and white), a coarse, strong-strawed, extremely productive kind, not apt to lodge, yielding many bushels of a large light grain.

Oats are generally chosen for sandy soils and cold late climates, where Wheat-harvest would be thrown too late, and good samples of Barley could not be expected.

**The Cultivation of Barley.**—It is generally taken as the crop succeeding the Sheep-fold, whether the crop eaten off has been Turnips, Rape, or Mangold Wurzel. The land is ploughed in March or later, and it is sown with 3 bushels, or thereabout, of Grain per acre, with the Suffolk drill, in rows about 8 or 9 inches apart. It prefers the looser and lighter soils; and it is an old saying that "Barley may be sown in the dust, and Wheat in the mud."

When sown, as it generally is, after Turnips, the land should be ploughed shallow, immediately after the full length of a furrow has been cleared by the sheep; and if it lies thus some weeks before seed-time, it is better, in order to weather the soil, and so obtain the loosened condition of land to which reference has been made. The

Barley crop, on well cultivated land, may be expected to reach at least 5 quarters per acre; it occupies about one-twentieth part of the arable-land of Scotland, and nearly one-sixth of the arable-land of England, according to the imperfect statistics which have been published.

Amongst the sorts may be named the Common English Barley, early, tolerably productive, short-strawed; the Chevalier, somewhat later, larger and longer-strawed, of first-rate quality, and very productive; the Annat Barley, even more strawy than the Chevalier, but not so liable to be lodged; Common Bere, a four- or six-rowed Barley, of coarser quality, harder, and adapted to poorer soils and harder climates.

The harvesting of Barley is conducted as that of the other cereal grains,—the crop being, however, suffered to become more thoroughly ripe than any other before it is cut; and in England it is laid in swathe by scythe or machine, and not generally tied in sheaves.

**Potato Culture.**—The field-culture of this crop may best be copied from the Scottish farmer, who cultivates it to as large an extent as he does even Wheat; and notwithstanding the great risk which has, of late years, attended the growth of this crop, it is still undoubtedly one of the most profitable that is cultivated. It is generally planted in drills or furrows 26 to 28 inches wide, made by the plough, in land which has been well cultivated before winter, and dunged either broadcast in Autumn, as liberally as the farmer can afford, or in the drills, along with the sets in Spring. In the latter case, the carting out of the dung and spreading it in the drills, and setting the Potatoes, and ploughing the drills back so as to cover the sets, all go on together; and the operation is conducted in March and early April. The plough opens the drills on one side of the working party, who are spreading the dung and planting the sets, and covers them up on the other side of them, travelling round and round perhaps a dozen or twenty open drills, where the dunging, spreading, and planting are proceeding. A dressing of guano and salt may be sown broadcast over the work before the last splitting of the drill which covers the sets. The drills are, by-and-by, lightly harrowed down, the sets come through, and, if there be liability to frost, may be covered up by the double-mould board-plough. The intervals between the rows are horse-hoed, and those between the plants in the rows are hand-hoed, and the last operation is the earthing up the rows by the double-mould board-plough. When the leaves are withered, the Potatoes are ploughed out, every other drill being first opened by the same double-boarded plough, the tubers are gathered, then the alternate drills, in like manner, are ploughed out,



and the whole affair finishes with a harrowing and gathering of the left tubers, the Potatoes are pitted and covered with straw and earth, and left until ready for sale. The only remedy for the Potato disease seems to be to plant early sorts in early season and in early soils, so as to obtain a ripe crop before the disease attacks it. The crop is taken after any Corn crop, and, being well manured and cultivated, occupies the place of a fallow crop, though it can hardly be called a restorative crop, in the rotation.

The most commonly grown sort is the Regent, a white round Potato, of which there are many varieties; the Dalmahoy is a very prolific second early variety largely grown in Scotland, and considered superior to, and rather earlier than the Regent.

The Flourball and Fortyfold are two well-known varieties that are largely in demand, and are profitable sorts to plant; the Early Oxford is a white, round, early Potato, of abundant yield; the Fluke, is a flat Kidney of large produce, and good quality, and many other sorts might be named—the list extending to many hundreds in number. The sets for next year's crop should be well dried and slightly greened in the sun or day-light before being laid aside or pitted; and they are the better, too, for not being cut, and for being planted before the first growth of sprout is so long as to necessitate its being broken off.

The crop is to be lifted as soon as ripe, which it does not now so fully become as they used to do before the haulm was liable to be cut down by the disease.

The crop is grown after Corn, or after Clover, or after Turnips; and the latter is now a common place for it in the rotation, and the land is then in good heart for the crop, which it ought to be for what is really one of the most hungry crops of the rotation. The yield may be from 4 to 8 tons per acre; but the latter, formerly common enough, is now but rarely seen.

**Cultivation of Grasses and Clover.**—March and April are the most common seed-times for them. Italian Rye-grass is perhaps better sown in early Autumn, and *Trifolium incarnatum* is commonly sown after a Corn-stubble, as early as possible in Autumn; and these will be found referred to in the month of September. The other seeds, both Clover and Grasses, are generally sown down with the Barley-crop, and more rarely with the Wheat, or even Oat-crop.

The perennial Rye-grass yields a more leafy and succulent growth in the cooler and moister districts of the country; on the dry hot side of the island it is common to sow Clover-seed alone; 20 lbs. of mixed Clover-seeds (10 lbs. of Red Clover, 5 lbs. of White Clover, and 5 lbs. of yellow) make an abundant seeding per acre. The bulk of the first cut is the Red Clover, with a little of the yellow; the bulk of the second cut is then White Clover, with a mixture of the other two. The Yellow Clover, or Trefoil, has a good deal of astringency in its character, of use in succulent fodder. When cut for hay, as it may be twice a year, it is mown in swathes, which are turned two days afterwards, and again after a similar interval, and then lifted into cocks, and carried next day, care being taken not to move the crop abruptly, or shake it much when nearly dry, as it will lose its leafy part, and be proportionally poorer in the rick.

Common or Italian Rye-grass is sown along with Clover; 12 lbs., or thereabouts, of the mixed Clover-seeds are sown along with two bushels of the Grass-seeds per acre. If the pasture is to lie down for two years, 2 or 3 lbs. of the Cock's-foot grass may well be added to the mixture, and 1 or 2 lbs. of the Cat's-tail may be added too, if the land be stiff.

To our common Clover (*Trifolium pratense* and *repens*), the common Red and White, there is added now a variety of the Red Clover, called Cow-grass, somewhat more permanent in its duration, and on that account to be preferred, and the *Trifolium hybridum*, or Alsike Clover, imported originally from Sweden, bearing an appearance midway between the Red and White, of growth as large as the former, but perennial like the latter. These plants—four species of *Trifolium* (*pratense*, *repens*, *hybridum*, and *procumbens*); the Red, White, Alsike and Yellow Clover; two species of *Lolium* (*viz. perenne* and *italicum*, the common and the Italian Rye-grass); one species each of *Phleum* and *Dactylis* (*viz. the Cat's-tail and Cock's-foot grasses*)—constitute the material of the Grass-crops of our arable land, intended to remain down not more than three years.

For permanent pastures, a mixture, including other sorts, *Festuca*, *Poa*, and other Grasses, is sown generally without a crop of Grain, in suitable weather and early summer, rolled, manured, and afterwards, for several years, depastured, until a good sward has been obtained. The seeds chosen vary, of course, with the character of the soil, amounting in all to some 2 bushels light seeds, and 12 lbs. heavy seeds (Clovers) per acre, made up of seeds which vary from 5 to 8 lbs. per bushel, as in the case of Fox-tail (*Alopecurus*), up to 12 or 14 lbs., as in the case of *Fescues*, and 16 or 18, as in the Italian and other Rye-grasses. 8 to 10 lbs. of the Rye-grasses (common and Italian), 2 or 3 lbs. of each of 3 or 4 of the *Fescues*, 2 or 3 lbs. of the coarser Fox-tail grass, 2 or 3 lbs. of the two *Poas*, smooth and rough-stalked meadow-grasses, 2 or 3 lbs. of Cock's-foot grass, and 12 lbs. of mixed Clover-seeds, form a sufficient seeding per acre. These proportions, of course, vary according to the nature of the soil. Perhaps, however, one of the best plans to secure quickly a permanent pasture is to cut up an acre of good Grass to and fro with a tool of the roller kind, having on it a number of sharp circular disks, separated by 3-inch "washers" strung upon an axle; then plough or pare the whole surface of the land about 2 inches deep, gather the whole of the surface, which will turn up in scraps of 2 inches square, into carts, and spread them out over 10 acres of a properly-prepared well-manured field, and tread them in, right side up, one to every square foot. There will be 600,000 such bits off the acre, so that it will suffice for the extent; a roller follows, and then some compost may be spread, and a light seeding of good Grass-seeds sown and brushed in afterwards.

It is proper to add that Grass-seeds are very easily buried. Mr. Stirling, of Glenbirnie, published in the Highland Society's 'Transactions' of 1844 an account of experiments which proved that the lighter the covering of the seed (so that it was left just under the moist earth) the better. All the living seed came up which was not covered  $\frac{1}{2}$  an inch deep with earth; any deeper covering than this killed more or less of the seed, and if placed under 1½ inch depth of soil, even though it was friable and well softened, all the seed perished. It is plain from this, that the proper way to sow Grasses is to place them equidistantly and evenly over the surface of a soil in perfect tilth, and then cover it or mix it with the top layer, by either the lightest possible harrowing, or a mere brushing in with the bush-harrow.

When sown not *with* the Barley, but over the young crop, after the seed has braided, it may be well to cover it by hand-hoeing the intervals between the rows, thus killing the young weeds, at the same time as you cover the Clover and Grasses.

## APRIL.

During this busy month of the year, Oat and Barley sowing should be finished. All Clovers and Grasses too should be put in, unless, indeed, their seed-time be postponed until the autumn. April wheat is even yet sown, in late seasons.

Carrots should now be sown. Mangold Wurzel too should be got in towards the end of the month. Kohl Rabi may be sown in drill, or in a seed-bed for transplanting towards the end of May. A bed of Cabbage seed should also be put in. Land may be got ready for Swedish Turnips, which are sown by the end of next month; and Flax may be sown during April: Lucern and Sainfoin may also be put in.

The *horse-labour* of the month, therefore, includes all field work connected with these several crops, and the hauling of manure out to the fields where they are severally to be sown; also the horse-hoeing of the young Wheats and Beans, and Peas, with Garrett's or other similar horse-hoe.

The *hand-labour* includes hoeing of corn crops, gathering weeds and stones, spreading manure, dibbling and sowing various seeds. Potato-planting should be finished. Paring and trimming of turf may be carried on. Attendance on live stock is, of course, continued.

**Culture of the Carrot.**—The principal sorts in which Agriculture is interested are the large White Belgian, large Yellow Belgian, and long Red Altringham. Of these the White Belgian may be considered the most productive, and being nearly equal in nutrition to the Altringham, is the one that is in the greatest demand for cattle food.

The Yellow Belgian is considered to contain more saccharine matter than the white.

The Intermediate Carrot is a useful sort for shallow soils. There is no difficulty in obtaining 15 to 18 tons per acre of the White Belgian Carrot, and enormously greater crops are sometimes grown. Thus, in the last number of the Agricultural Society's Journal, a crop exceeding 30 tons per acre is reported, which was sown so late as the month of May. The end of April is the best seed-time for the Carrot. If sown earlier, the land, still cold, does not start the seed, and it germinates so slowly that weeds get up and almost choke the plant. To hinder this, in the case of tardy germination, it is well to sow a few Turnip-seeds, or a few grains of Barley, along with the carrots in the rows, so that the position of them may be more early apparent, and then the hoe be set to work early enough to kill down the weeds. Carrots are grown on all sorts of soils, but of course, like almost all other crops, grow best in deep loams. The land should receive deep autumn culture, and the dung should be ploughed in then. The land, if clean, will only need a harrowing down some time in April, and after a dressing of guano, 2 or 3 cwt. per acre, it should be rolled down as hard as possible: seven lbs. of seed is then sown in rows 15 inches or 18 inches apart; and it may be well to mix the seed some days before with 2 or 3 bushels of dump sand, so as to hasten germination in the soil. The Suffolk drill, without weights on its coulter, is then set to drill 2 or 3 bushels per acre in rows of the required distance apart, and the mixed sand and seed is thus placed in rows as shallow as possible in the land, and brushed or rolled in the intervals, and hoed repeatedly during the growth of the crop, and the plants are singled to 6 or 8 inches apart. They are dug up in October and November by the fork, costing for digging, topping, and tailing and filling into carts, from 18s. to 24s. per acre, according to the crop. They are especially useful for Wintercows, and for use in the stable.

**Culture of the Mangold Wurzel.**—This is still almost exclusively an English-grown crop. The climate which it likes is hotter and drier than that of the northern half of the island, and during the past year accordingly, which has been neither dry nor warm, it has not produced anything like so good a yield as it generally does. Its cultivation is nevertheless rapidly increasing here: and its large productiveness, its comparative freedom from the risks attending turnip-culture, and its fitness as food for all kinds of stock at all seasons of the year, have become now widely known. There has been a long-continued prejudice against Mangold Wurzel as being fit food for horses, sheep, or cows, in farrow, lamb, and calf, under the impression that they caused premature labour and abortion; and secondly, against the use of Mangolds for any kind of stock, on the plea that early in the season they are rather phlegm than food. Both of these assertions have been disproved now by ample experience. When pulped and mixed with chaff of straw or hay, in proportion determined by experience, they can be given to feeding stock without any undue relaxation of the bowels: the dung shall be as firm as it is desired, notwithstanding a very considerable admixture of this succulent food, if only well mixed with the dry fodder;

and even without actual mixture, sheep, and ewes in lamb, have been folded early in winter upon Mangolds in the field, being well supplied with hay-chaff in troughs, with every proof of their being in excellent health and condition. Swine, too, have been fed in yards all the winter on very little else than the half-rotten roots thrown to them from the heap, and no instance of abortion, and no instance of injury of any kind, has followed. The sharp weather of October 1859, by which such large quantities of Mangolds were spoiled on the ground, so that the farmer was induced at once to turn his stock on to them, that they might not be utterly wasted, gave a capital illustration of the fitness of the root for food early in the season: and though it will still remain the distinction of the Mangold Wurzel that it is available as food all through the summer of the following year, keeping sweet and juicy long after common turnips and Swedes have become dry and lathery and tasteless, yet the doubts of its fitness for food as early as any other root crop have long since been dissipated, and it would no doubt be possible (with the aid of a little fodder, to be consumed in larger proportions when the roots are first grown) to keep cattle well all through the year on Mangold Wurzel only. The sorts grown are very many: the globe-shaped varieties are better than the long ones, because the latter straggle over the ground above, while their roots are generally found to be more forked and ranging beneath its surface, so that they are more laborious to lift; and the globes are better also because of the smaller quantity of surface which is thus exposed to drought, and they remain juicy for a longer time next summer.

The Orange and Red Globes grown from well-selected roots transplanted on to ground well but not too richly cultivated, will yield the best crop; and when this selection has gone on from year to year for several seasons, the habit of good and productive growth becomes confirmed. Every seedsman thus gives his own name to seed grown in this way. The Elvetnam, and other long red varieties, are preferred by many cultivators, and unquestionably, like all other well-selected seed of whatever sort, yield large crops.

The cultivation of the Mangold Wurzel is like that of Turnips; and as the stiffer class of soils may well be devoted to this crop, it is well to do as much of the cultivation of the land in autumn as possible. If possible, then, a corn stubble should be pared and burned, and ploughed and harrowed, and grubbed and harrowed and cleaned during October or early in November, and the manure, as heavy a dressing as possible, should then be spread broadcast and ploughed in. In March or early in April, this should be harrowed and grubbed and reduced to tilth without the use of the plough. A dressing of 2 or 3 cwt. each of guano, super-phosphate, and common salt may then be sown broadcast over the land, and the plough is then used to rib the land in drills at least 30 inches wide; the seed, 6 or 7 lbs. per acre, is then drilled on the top of the ridgelets thus formed, and rolled down. It should be placed not more than half an inch deep in the land. Each capsule contains 2 or 3 seeds; and 4 or 5 lbs. per acre is therefore enough, though the larger quantity is generally considered safer.

Or the land may be ribbed in autumn after the preliminary clearing, the dung being placed in the drills and covered by splitting the intervening ridgelets. The spring dressing of hand manures is sown broadcast over them, the intervals between the ridgelets are horse-hoed, and the double mould board plough sent down just to earth the



ridgelets up again, and the seed is sown as before. This is the best plan in the case of very stiff soils; or, if only one autumn ploughing be given, then the spring cultivation must be more elaborate, and one or two ploughings must be given in order to the thorough cultivation and loosening of the land before, as in the former case, it receives the manure and the seed. This spring cultivation should be confined to the lighter class of soils.

The seed may be dibbled instead of being drilled; and this is a very common practice: in this case, women or boys are furnished with a bag of seed and a blunt dibble; each stands on one side of the drill with the right foot upon it and the right hand over it; a small hole is made, and 2 or 3 capsules or seeds are dropped from the left hand into it, and covered by a sliding movement of the right foot, which half stands upon the place, while the next hole is made 15 or 18 inches farther on. This plan diminishes the labour of singling the plants, as they come up in small bunches at the distance required.

By and bye, as in May and June, when the plants are tolerably well up, the horse-hoe is sent down the intervals between the rows, and women following with hoe in hand, singling out the rows or bunches, and the ridge is hoed clean of small weeds. The horse-hoeing is repeated at fortnightly intervals during July and August; in fact as long as the growing leaves permit, and a second hand-hoeing clears the ground left by the horse-drawn tool. The crop must be harvested before frost. It is drawn and thrown in rows, and the leaves are cut off, and the roots are thrown into carts and drawn to heaps, covered with straw, and after lying a week to somewhat dry and hinder fermentation, it is covered up, and is safe till wanted up till late in the following summer; though, as already stated, it may be safely used at once. The crop may be from 20 tons (a fair crop) up to 40 tons, and even more per acre. There is no crop, unless it be the Italian Rye-grass, which is so gross a feeder as the Mangold. Almost any quantity of farm-dung and ground and salt superphosphate with it may be usefully applied, with the certainty of its producing a corresponding crop.

**Flax Culture** is diminishing in this country, notwithstanding every attempt to bolster it up. On rich loamy soils, after no matter what crop, if only the land be clean and in good heart, Linseed is sown broad-cast, 10 pecks per acre, early in April, and hand-weeded in May, and pulled as soon as the seed-bolls are brown in July. If the seed is allowed to become thoroughly ripe, the fibre is coarse. The largest sum of money, as a general rule, is made per acre when the plant is pulled at the earliest indication of ripeness of seed. The seed is got out by rippling as it is called, that is, drawing the plant in handfuls through an upright comb of teeth. The plant is steeped either for weeks in the dew, or for days in a tank of hot water; and, as soon as fermentation has released the fibres from one another, it is taken out, squeezed, dried, and scutched, to remove the bark and tow. The use of Linseed in cattle food is well known, and from this and the value of the fibre obtained, the profit of its cultivation is derived. The crop yielded may be 40 or 50 stones of flax and 16 or 20 bushels of seed.

**Lucern.**—It must suffice to say that 15 lbs. of seed sown about the middle of April in shallow drills 12 to 14 inches apart, on very deep loamy well-manured soil, especially if it contain calcareous matter, will produce a most valuable forage crop; which in a mild climate will yield during the summer and autumn of the first year a good deal of capital food for cows and horses; which it will continue to do during the following six or seven years, if kept clean and occasionally tilled between the rows and manured.

**Sainfoin** is a forage crop of calcareous districts. On the oolite and chalk it is the best forage crop we have. Four, or some sow five, bushels of the rough seed is sown per acre with barley or oats taken after a fallow crop which has thoroughly cleared the land. The crop may remain good for several years, and is ultimately ploughed up for wheat. Any patches of root weeds, being dug out first; or if very foul, as it often becomes, it is sometimes pared and burnt and sown with turnips to be fed off, and followed by barley and spring wheat.

## M A Y.

In this month we finish Mangold Wurzel sowing, and we prepare the land for the Turnip crop. This, with continued hoeing of all growing crops, and possibly folding or mowing a too luxuriant growth of wheat, is almost the entire occupation of the month. In Scotland May is the seed-time of the Swedish Turnip, and in England it may be sown in the latter part of the month. It is, however, better to delay the seed-time till June, as too early sowing results often in our hotter climate in premature ripeness, and consequent mildew.

The *Horse-labour* in May accordingly includes all field operations in the Turnip fields, horse-hoeing Beans, Corn, Potatoes, Carrots, and the earlier Mangold Wurzel.

The *Hand-labour* includes singling Carrots and Mangold Wurzel, Carrots and Parsnips, transplanting Cabbages and Kohl Rabi, and hand-weeding Flax, mowing Trifolium, Rye, &c., as fodder, and attendance on live stock.

**Mowing Luxuriant Wheat.**—Our best crops at this time of the year completely hide the ground, owing to the luxuriance of their growth. This does no harm in dry weather, but the leaf hides not only the ground, but the stem of the plant, so that it is liable to become blanched, and to be weak and over-succulent. After a shower at this time of the year, when every leaf is bowing under the weight of rain-water, on looking towards the sun at a promising field of wheat you will see its light reflected towards you in an unbroken sheet, none of it finds access to the lower parts of the plants,—the leaves get it all to themselves, and, as a consequence, they grow luxuriantly, increasing in length, and breadth, and weight, until with the load of water which the weather sometimes lays upon them, they ultimately become too heavy for the weak herbageous stalks below them, and the plants are laid flat on the ground, to the great injury of the farmer. It is a common practice to sow salt over too rich land in Wheat, or at seed-time, under the idea that its soda will enable the extraction of the silicates of the soil, and consequently induce

the deposit of a large quantity of silica in the straw of the ripened crop, which will thus be better able to stand. It is however certain that this process is effected, if at all, towards the harvest time, and that salt does little or nothing to remedy this liability to being laid early in the season. The only remedy, then, is to induce the hardening and wood-making process in the stems of plants. Now the deposit of carbon, in which this essentially consists, takes place only in the sunshine. The carbonic acid of the air is absorbed by leaves and decomposed in the sunlight, its carbon being deposited wherever the sunlight falls, and the oxygen being given back to the air. Any growth in the shade is more or less blanched; and while one immediate advantage of mowing off the heavy flag of Wheat at this time of the year, or earlier, consists in the plant being at once relieved of a heavy overhanging weight which bears it down, the chief advantage is, that the light has leave to play upon the soft and succulent stem of the growing plant, which thus becomes carbonized and hardened, and enabled better to withstand the weather. It is

easy, by examining a plant very early in the season, to ascertain the position of the young ear, and the flagging may be easily done without injury to it, either by hook brandished horizontally to right and left, or, even when the plant is very thick and very succulent, by the scythe. The necessity of a hardened stem, and of letting sunlight play upon it, is an argument for their sowing at wide intervals.

**Green Manuring.**—It is not generally at this season of the year that plants are sown to be ploughed in, because thus early you can sow seeds whose produce shall deserve a better fate; nevertheless we may refer to the practice here as oftentimes furnishing a cheap and efficient method of fertilizing the ground. If the ground is poor after a corn-crop which has been early harvested, you can often get, before winter, a luxuriant growth of vegetable matter which, then ploughed in, shall be a useful contribution of fertilizing matter towards a green crop in the following year. The practice of ploughing under a growing crop to rot in the land and supply organic matter by its decomposition there, is chiefly adopted on very sandy soils, which are either deficient in organic matter, or in which (hungry soils as they are called) it rapidly rots and disappears. For this purpose the succulent White Mustard, the Celandine, another cruciferous plant, or Rye itself, may be sometimes used. The ordinary plan is to sow it broadcast, and plough it under by the aid of skim coulter and heavy chain dragging from the beam of the plough, by which the whole growth, though it may be two feet high, is buried perfectly; and it should be done before the plant comes into bloom. The practice of green manuring is of the same fertilizing kind as the ploughing under of Clover-root or old sward, which everybody knows to be the richest kind of dressing that can be. But for special green manuring special crops are grown, such as Italian Rye-grass, Clover, Buckwheat, Lupine, Rye, Spurry, Rape, Mustard, Vetches, which have all been used for this purpose; many of them, as the two first, and Rye, Rape, and Vetches, are better used as food for sheep folded on the land; and the Lupine, too, has latterly been warmly recommended for this purpose on all very light sandy soils. Sometimes, however, it is not convenient to procure stock for the consumption of a green crop, and then the cheapest way of making use of it, and adding to the upper soil, where it will be immediately available, a store of valuable matter, which has been taken from the air and from the subsoil, is to plough it under.

**The Lupine** has been recommended to be sown about one bushel per acre, rather in June, however, than in May, in rows twelve inches or more apart, on light sandy soils. The horse-hoe will keep it clean, and sometimes a large produce of valuable seed is obtained, of great value as food for stock, while the green plant, if fed down, is a capital forage for sheep folding, or for any other kind of stock. Mr. Crisp, of Bentley Abbey, states in a recent number of the 'English Agricultural Society's Journal,' that he obtained fifty waggon loads of sheaves off eighteen acres sown with eighteen bushels, and that the quantity of grain was estimated at forty to fifty bushels per acre.

**Kohl Rabi.**—This has latterly become a more favourite crop, owing to the failure of Turnips, and the large produce which some growers have obtained. Mr. Lawson, in the 'Agricultural Society's Journal,' calls it the root of dry summers; but it seems during the past year to have been less injured by the excessive wet and cold than many other sorts. When Mangolds and other roots have been universally small, the Kohl Rabi does not seem to have suffered in the least. It is either sown in seed-beds in March, April, and May, to be transplanted respectively in May, June, and August, or it may be drilled in rows where it is finally to stand. If sown in seed-beds for transplanting, a pound of seed, or thereabouts, sown in a well-prepared bed, will furnish plants for an acre. If drilled on the land, four pounds per acre will be needed.

Kohl Rabi prefers the heavier class of soils, which should be reduced to thorough tilth, and richly manured during autumn. The plant will benefit by dressings of superphosphate. Seed sown early in March will furnish plants ready to transplant early in May. When drilled in the field, they may be sown in rows twenty-six or twenty-seven inches wide, and singled out to fifteen or sixteen inches, as for Mangold Wurzel. The produce is large and good for cows; and, so far as analysis can determine, it is more nutritive. It is hardy, and withstands any frost; and while past experience proves it well adapted for dry summers, that of the past has proved that it flourishes in watery weather also.

**The Cabbage** is a useful field plant, grown largely for this purpose in North Lincolnshire and elsewhere, on clayey soils. The land is ploughed and manured in autumn in raised drills, into which the plants are dibbled about midsummer, the work being generally contracted for, labour, plants and all, at about 25s. per acre. If Drumhead Cabbage-seed be sown in beds late in August and pricked out into other beds in November, and again planted out in the field in February and March, they will be ripe and fit for use in early autumn.

If sown in April and May, and transplanted as soon as big enough, which is the practice on the clay soils of North Lincolnshire, they furnish ample store of winter food. The Cabbage likes a stiff soil, and all the cultivation for it should be done before winter. A very large produce, sometimes exceeding forty tons per acre, is obtained. The rows may be three feet wide, and the plants two feet apart in the richest land; but other and smaller intervals may be adopted if the land is not in such good condition. The Drumhead is the best sort, producing a substantial and firm mass of food. The Thousand-headed, also a field Cabbage, has an open growth, and must be folded on the ground or cut as forage, as it cannot be stored.

**Buckwheat** is sown one bushel per acre in rows twelve inches apart, in the middle of the month of May, on any light free soil. It is not a desirable crop, except for poor sands, and as a produce worth growing for poultry and for game, unless indeed, as already said, it be grown as a green crop to be ploughed in.

## JUNE.

Turnip Cultivation is the great business of this month in England. In Scotland, the latter part of May, or indeed as early in the month as possible, is the best seed-time for the Swedish Turnip, and then the Hybrids, Hard Yellow Turnip, and Soft White Turnip, follow in succession. Rape, too, may be sown this month; Mangold Wurzel, Carrots, and Parsnips may be horse-hoed and singled. Cabbages and Kohl Rabi continue to be transplanted. Clover is mown for forage; Vetches, too, are mown and carried to the feeding-stalls and stables, care being taken, when they are still very young, to let them wither for a day in swathe before being given to horses.

The *Horse-labour* in June accordingly consists of ploughing and cultivation in the Turnip-field, and carrying of manure and green food.

The *Hand-labour* includes hoeing, weeding, &c., of the growing crop, and dung-filling, &c., connected with Turnip culture. Sheep are washed and shorn in May and June; and Dairy operations are at their height.

**Turnip Culture.**—By the introduction of the Turnip into cultivation, the relations of agriculture have been en-

tirely altered; and though the Mangold Wurzel, Kohl Rabi, Carrot, &c. are now to some extent taking its place, yet



the credit of an entirely altered system of arable management is due, in the first place, to the Turnip. We now make more meat on plough-land during the winter months than during the summer; a thing which is certainly very different from the agricultural experience of half a century ago. Formerly men lived on salted meat in winter time, and summer was the only period of the year during which cattle fattened. Now winter is, on arable farms, the great feeding and manure-making period of the year, and the growth of grain crops consequent upon the improved management of our arable land has enormously increased. The more cattle the more corn is a true adage, which has been wonderfully illustrated during the past century in our own country; and it is now also being gradually illustrated in France by the gradual extension of the means of feeding a greater herd of live stock.

The Swedish Turnip and the Common Turnip are two distinct species of the genus *Brassica*, characterized, the one by its smooth, and the other by its rough leaves when fully grown. Of the Swedish Turnip there are ten or twelve sorts, and new ones are every day coming into fashion. Among these are Skirving's large and somewhat coarse variety, solid, succulent, productive, but running rather too much to neck and leaf; Laing's neater, not so large, with leaf entire, and feathered down to its junction with the bulb; producing fewer tons per acre of a softer-fleshed root; Carter's Improved London, a smaller root; hard, crisp, juicy, hardy, in every respect first-rate, running less to seed, which is indeed another of its merits, can be recommended as the best Swede in cultivation; the Common Green and Purple Swedes, both good old-fashioned sorts; and many others introduced by the different seedsmen, and improved by constant selection, until the produce is believed to deserve their name, and thus add to the reputation of the farmer who had introduced it. Of the Common Turnip, again, there is an even greater number of varieties, Globe, Flat, and Tankard-shaped, Green, Red, and White, hard almost as a Swede, and so soft, in some few cases, as to disappear under almost the earliest frost. Among these we may name Dale's Hybrid, the Aberdeen Green-top and Purple-top, Yellow, the Green-top White Globe, the Lincolnshire Red-topped Globe, the Green and Red Tankards, the large White Globe, or Norfolk Turnip, often reaching 20 lbs. apiece, and the Common Stone and Stubble Turnips, are rapid growers, and therefore fit for sowing later than any other. Of these, we sow the Swedes first, not earlier, however, than the last week in May in England; the hybrids next, the Yellow Turnip, all of good solid flesh, often the hybrids and the Soft White Rounds, and Tankards last, even so late as September, on a properly prepared corn stubble. And these roots are consumed in the reverse order of succession, the soft Whites being consumed first, the harder Turnip next, and the Swedes last. In Scotland, the Common Yellow Turnips are kept on, and remain good till much later in the year than in England, and all these sorts are more nutritive there than in the South. There is no such thing here as fattening cattle on Turnips and straw alone, which is practicable there.

A great deal hinges not only on the selection of a good sort of seed, but on choosing it when it is perfectly grown. When the seed is gathered from a late-sown crop left to seed, which had been intended to be consumed upon the ground, and is thus taken from the ordinary run of roots, it is not so good as when grown from selected roots transplanted into fresh ground, and thus taken out of the natural and wild state of reproduction, which tends rather to permit the plant going back to the original wild type. The principle that plants bring forth "of their kind" should be acted upon, in order that the best kind only may be reproduced, and this can only be effected by choosing the best-formed roots, whether they be Turnips, Mangold, Carrots, or Parsnips, for seedling.

The cultivation of the crop is in this wise:—For the stiffer class of soils as much is done in Autumn as possi-

ble; and whether the crop is to be grown on raised drills or in rows upon the flat, as much as possible is done to clean the land and manure it in the Autumn. If the former plan be adopted, as soon as the Wheat or Oat crop is removed the land is scarified, and harrowed, and raked together and burned; and if foul, it is ploughed, and harrowed, and rolled, and grubbed and weeded repeatedly, until cleaned. If already clean, the use of the scarifier and harrow is alone needed until the land is ribbed up by the plough for the reception of the manure. This is then carted out of the yards and stalls on to the land, spread in the drills, and covered by splitting the intervening ridgelets, and left till April. Whatever artificial manure it may be intended to apply is sown broadcast, then, over all, and the land may then be slightly harrowed down, the horse-hoe put through the intervals between the drills, and the land then ridged again by the plough, and the Turnip-seed sown towards June, with a greater chance of success than it would have had if the whole cultivation had been left till Spring, or if the land had been ploughed again after Winter, thus turning up clay soil unaffected by the frost, which would have to be reduced by the harrow and the roller, with small chance of so fine a tilth resulting as is produced by the action of a Winter's weather.

On the ordinary Turnip (*i.e.* lighter) soils the stubble is first ploughed after harvest, and the land in Spring is harrowed down and cross-ploughed, and soon brought to tilth and cleanness, and then it is ribbed up for the manure; the guano and the superphosphate is sown broadcast over the open drills, with the manure in them, and the whole covered up as before by the double-mould board plough, so that the artificial manure, while partly spread throughout the soil, is brought for the most part pretty much into the centre of the future ridge on which, as in the other cases, the seed is sown in May and June. From two to four pounds of seed are sown per acre by the double Turnip drill; and if there be any chance of drought, it is at once rolled down by a light wooden roller immediately after sowing. And in a couple of weeks or so the crop is into rough leaf, and the plant is comparatively safe from the Turnip-fly. The attacks of the fly are most severe during the existence of the sweet first leaf of the plant, and very often the crop is then destroyed by it. Various expedients have been devised and acted on with more or less success for evading this pest. The period of danger should, by using forcing manure, and by thicker sowing, and also by sowing by the water-drill, be shortened. The flies themselves, too, are often directly attacked by contrivances, such as drawing a painted board over the rows, to which the insects adhere, as they jump on being disturbed.

Mr. Rowley, too, has devised a dusting drill, by which lime-dust and soot may be thrown down upon the rows over which it is drawn in the dewy morning, when all this dust will adhere to the leaf. Major Munn has contrived a set of revolving brushes, by which the insects are gathered up and carried away. It is, however, we believe, an almost hopeless task to attack a great plague of Turnip-fly directly in this way. And the only hope to which any probability attaches, is that by hastening the growth of the plant it may be hurried out of danger's way. Mr. Poppy, indeed, has asserted that the fly is much fonder of Common Turnips than of Swedes; and he alleges that by sowing an occasional row of the former in the midst of the latter, he has confined the attack of the fly to this decoy plant until the main crop of Swedes has grown out of reach of injury. After this, however, the Turnip-crop is still liable to destruction by various caterpillars. This, however, is generally after the plant has grown a good way on to maturity, and before then the crop has to be singled. The distance to which the plants should be separated in the rows is a point on which local experience can alone be a guide. They are generally singled out from 10 to 12 inches apart, and it is evident that if, by giving them greater room, you can in that proportion in-

crease their diameter, you by so doing obtain a much greater increase of weight per acre than if by leaving them nearer one another, you merely increase their number. A crop twice as thick on the ground of the same size would be only twice as heavy, but a crop the same in number, but twice as thick individually, *i. e.* of twice the diameter, would be eight times as heavy; the bulk and weight increasing of course as the cube of the diameter, while it only increases simply in proportion to the number, so that the room given them ought always to be such as shall afford full scope for the largest growth to which the other circumstances of the crop may lead. About 12 inches apart is a good distance. The intervals between the drills are first horse-hoed, or pared with a one-horse plough, leaving abrupt ridge-lines on which the row of young plants is growing; and the hand-hoe, by alternate push and pull, bevels this abrupt ridge down, and leaves solitary plants along the ridge-line at intervals of about a foot. This is done by women or boys, at the cost of about 3s. or 4s. an acre. The plants are left till the surface of the land again cakes over by the weather, or again exhibits weeds, and then it again requires a horse-hoeing or hand-hoeing. A deeper stirring than the former horse-hoeing is then given, and in a few weeks repeated, when the leaves should meet in the drills. This they will do early in August in Scotland, and perhaps not till September in the South. And it may before this have exhibited signs of mildew, which is generally prevented by avoiding too early sowing, and adopting everything, whether of the nature of tillage or manure, which shall conduce to the persistent vigour of the growth. Even then the crop is liable to result in worthless produce, owing to the disease called finger and toe, generally the result of the absence of lime from the soil. It consists in a forked stunted growth, covered with warty excrescences, in which ultimately grubs and rottenness appear. To diminish the frequency of the crop on the land, to apply lime, and to use every other means of securing rapid and luxuriant growth, is the way to reduce the chance of attack by this disease to a minimum.

The liability to this disease, or at least to that degenerate form of the root, which is one feature of it, is increased by the use of carelessly grown seed. If, as has been already said, Swedes are sown late in the year, and left a small and ill-formed growth over Winter where they grew, and the seed be reaped next year and sown for the following crop, it is more likely to yield a forked stunted crop than if the seed-crop had been sown in May, attained its full growth, been pulled and pitted, and afterwards selected and transplanted and perfectly cultivated, yielding seed which carries in it a tendency to reproduce the well-formed roots from which it sprang.

When the crop is ripe, it is left there and folded over with sheep, or it is half carried home to the yards, the remainder only being consumed upon the ground, or it is wholly pitted on the ground and consumed there by sheep folded later in the season; or it may be wholly carried home to pits for consumption by cattle in boxes, and stalls, and yards. The cost of pulling Swedes and Mangold Wurzel varies from 6s. to 10s. per acre, including for that sum the labour of cutting off the tops and filling the roots into the carts. They are either pitted in long ridge-like heaps on the ground, and covered over with straw and earth, or they may be placed between parallel rows of hurdles, eight or nine feet apart, and thatched

over; another double row of hurdles being placed about a foot from the first, and treated in like manner, and the intervals stuffed with straw, and the heaps roughly thatched over, the bushy caves of the thatching interlocking over the intervals. The three great requisites of ventilation, warmth, and dryness are thus sufficiently secured.

There are many other methods of Turnip culture besides the one described. It is more common in England to sow the seed in drills 18 inches apart on the flat, the land having been first cultivated and manured either in Autumn, or partly in Autumn and Spring. This is a sufficient width for a less perfect horse-hoeing, and in dry seasons it is perhaps preferable as being a less exposure of the soil to drought. And it is becoming more and more common to put in the seed with the water-drill, which deposits both manure and seed in a manner calculated to induce immediate and rapid growth—an apparatus for throwing liquid manure at a constant rate, or mere water containing superphosphate, or guano half dissolved and half suspended, though it is conjoined to a common Turnip drill, so that the mixture is thrown down in rows upon the land as the drill is drawn over it. It is also more and more common in England to depend on superphosphate and lime-dust alone, or with ashes, for a crop of Turnips, applying almost all the farm manure on the Clover-stubbles for the Wheat-crop.

In Scotland, on the other hand, it is preferred not only to apply farm-yard dung, in itself a nitrogenous manure, almost exclusively to green crops, but they even prefer guano, a still more nitrogenous manure, as an adjunct, instead of the superphosphate. It is also common in England to sow Turnips broadcast on the land, which, at best, is a careless method of Turnip culture, and only defensible in the case of Stubble Turnips, where a crop, partly of bulbs and partly of greens, is available in Spring for Ewes and Lambs. The different sorts of Turnips vary a good deal in the proportion of water which they severally contain, and still more, therefore, in the residual proportion of dry matter in their substance, on which almost alone, of course, their relative nutritiveness depends. This variety hinges not only on sort, but still more on weather, and the other circumstances of growth. And the proper manuring of the Turnip-crop, in order to obtain a healthy growth, is therefore of importance.

Mr. Nesbit declared before the London Farmers' Club that he had ridden through a crop, his horse stumbling over hard and firm roots, during one-half the field, and going smash through, almost constantly rotten bulbs over the rest of the field; and the line separating the two was where the superphosphate made from bones used in one-half the field was separated from the superphosphate made from coprolites used on the rest of the field. The former contained all the other ingredients needed by the growing plant, the latter resulted indeed in a rapid and stimulated, but unhealthy, because imperfect growth. And it is very possible that a lopsided manuring, as it may be called, one in which all the elements wanted are not evenly supplied, may be productive of that unhealthy growth to which Mr. Nesbit referred. The influence of climate on the crop is a more obvious thing still. The slower and more continuous growth of the crops in Scotland results in the production of something very different from an English Turnip. The latter is useless as food soon after the beginning of the New Year, while the later remain good till late in Spring.

## JULY.

The work this month, excepting the continuance of turnip culture and the horse-hoeing of root crops, is more on the pastures and clovers than on the arable land. Haymaking, with perhaps the earliest of the corn harvest, in the shape of pea and bean cutting, occupy the hands.

The *Horse-labour* is thus lighter in July than in any other month of the year. It includes repeated horse-hoeing of the different green crops. Sowing of wheat may be called "stolen" crops, *i. e.* after Vetches, Rye, Italian Rye-grass, and other



early forage crops. Carting of hay, and of various other materials, lime, drain tiles, wood materials, which, as horses are at leisure, may be more easily done now than at any other time of the year. Any work of the nature of bare fallow is carried on during July.

*Hand-labour* is almost exclusively confined to hay-making and various hoeings, with the earliest of the harvest and Flax pulling, Bean and Pea cutting, and perhaps Rye cutting, if any is left to seed.

**Rape Culture.**—This is sown to some extent on most kinds of soil, but it is especially the green crops of our fen districts, yielding a thick juicy succulent stem and leaf, much more nourishing than any turnip that can be grown in such circumstances. 4 lbs. or thereabouts are sown per acre, in rows 15 inches apart, on the flat. It receives a very imperfect hand-hoeing and singling, and except horse-hoeing, very little other cultivation during its growth; and it yields a very large bulk of succulent food of much greater value for sheep feeding per acre than the Turnip or the Mangold Wurzel, growing sometimes so high that even the tall upstanding Lincoln sheep is hidden in it. A good crop will keep 16 to 20 sheep from October till February per acre.

**"Stolen" Crops.**—Rape may be considered one of them; but the term is generally applied to those crops, as Rye, Vetches, Trifolium incarnatum, &c., which are sometimes taken on a corn stubble, and fed or cut before a late turnip sowing. It is proposed to refer to them here, notwithstanding that it is generally later in the year that they are sown.

(1) Rye is sown as a stolen crop on any corn stubble, which should be ploughed under and harrowed, and if possible manured. Three bushels are sown broadcast—a thick plant is wanted—and being sown early in October it covers the ground before winter, and produces our earliest spring fodder. Mr. Taunton some years ago advocated a variety called St. John's Day Rye from its being capable of being sown so early as St. John's Day, and forming a bulky growth above the ground without starting the ears before winter. It is cut in March and April for forage, and carried to the stalls, or it is folded over with sheep. It is adapted to light soils, and will yield on our poorest soils a heavier crop of grain than any other of our cereal grasses would produce. The land is cleared in ample time in May for sufficiently thorough cultivation, to ensure an early enough seed-time for common turnips, or even for summer vetches.

(2) Vetches are sown in October, drilled in by the Suffolk drill, in rows 6 inches apart, 3 or 4 bushels per acre. If the Winter Vetch is sown, the seed-time is as early as possible after harvest on any corn stubble, properly manured and ploughed, and the yield in April and May, cut while in blossom, is capital food for all kinds of stock. It is, when cut young, extremely succulent—too much so for use in the stable, unless allowed partly to wither before being given to horses. It is best grown on the stiffer class of soils. On light soils, although it yields well even there, yet its fibrous root so loosens the land as to injure it for the succeeding wheat crop. The Winter Vetch is mown off the land in time enough for a later-sown crop of Turnips, which should be folded on the land, and then followed by barley. Spring-sown Vetches are sown just in the same way, 3 bushels or thereabouts per acre; only they cannot be called a stolen crop, being taken as the main produce of the season. They may be seeded, and will yield from 3 to 4 quarters of seed per acre. Mr. Shurrell, of Haddington, introduced a white-flowering Vetch of great luxuriance of growth, which is superior as a forage crop to the common kinds. It may be mentioned here that the use of the water drill is especially adapted to secure a crop of Turnips after stolen crops. Such crops leave the ground of course hard and dry, compared with the land which has been fallowed during Autumn and Spring; and the drought of the later season, when alone Turnips can be sown after them, added to the natural dryness of the soil, often spoils the prospect of a turnip crop altogether. If properly ploughed up, however, and manured, and reduced by cultivator, chisel, crusher, and harrow to a certain degree of tilth, the water

drill will moisten the land enough to ensure the germination of the seed, and a crop is generally obtained.

(3) *Trifolium incarnatum*.—This, a hardy coarse crimson flowered clover, may be sown as early as possible after the Wheat or Oats is off. 24 lbs. of seed are sown broadcast over the stubble, and if rain has fallen, the harrow will scrape earth enough up to cover the seed, which seems to find in the hard land a more congenial seed-bed than when pains have been taken to manure and cultivate the soil. It sprouts and covers the ground before Winter, and forms a bulky coarse produce in April and May next year, which must be consumed during the time it is in flower, or it will become so hard and woody that it is indigestible and distasteful. It is only during a short time, about a fortnight, that it is fit for food; and a small portion only on any farm is all that is necessary. But Messrs. Vilmorin, of Paris, have introduced two other sorts of this *Trifolium*, one a white-flowered variety, and both of them much later than the common *T. incarnatum*, and thus three times the extent of land may be usefully devoted to this crop. Sown the same day, they will come to maturity at intervals of a fortnight from one another; and when the common sort is just going out of bloom, and the last of it therefore is being cut, the second sort will be in full succulence and at the height of its value, while the third, ready to succeed it, is hardly yet in bloom. All these sorts, like Rye and Vetches, may be followed by late-sown Turnips; they make very coarse hay, and are best consumed as forage, and so long as it is succulent, sheep and all other stock will eat it greedily: 12 to 20 tons of green food per acre may thus easily be grown. If consumed by sheep, they should be folded on the field. The plough follows as soon as a furrow from end to end of the field is possible, and its consumption leaves such a dressing of dung upon the land that 2 or 3 cwt. of superphosphate, sown in the water drill with the Turnip seed, will secure an ample crop.

**Haymaking.**—If every blade of grass could be exposed as soon as cut to a temperature somewhat under that of boiling water until perfectly dry, and then packed away under a water-proof roof, the hay would be as good as such grass could yield; the whole nutriment which the grass contained would be present in the hay, undiminished by washing or by fermentation. For the best hay there is needed the best grass, cut when containing the greatest quantity of nutriment, and dried rapidly and perfectly. To this end the grass fields of Herts, Middlesex, and Surrey, where the best hay is made, are cut soon after they are in flower and perpetually tedded and shaken out, no two blades being allowed to stick together while drying. The hay, with certainly a little loss of colour, is thus simply dry green grass. It heats hardly at all when put together, and so far as the food is concerned that was in the field, it is all and undiminished in the rick. Just in proportion as it resembles this, is hay-making good. Mr. Baldwin's, of Glasnevin, essay on this subject was published in the Spring by the Royal Dublin Society, and may be consulted with advantage. It recommends Italian Rye-grass to be cut on the appearance of the flower, as a second and third cutting is obtained if not allowed to seed. Common Rye-grass should be allowed to form its bloom. Clover should be cut when in full bloom; mixed meadows when the earliest grasses, as *Anthoxanthum*, have formed their seed, the bulk of the grasses being then in bloom. Grass is cut cheaper and better by the horse-drawn mowing machine than by the scythe. There is great loss of the nutritive part of grasses by long exposure in field. As soon as it is made, hay should be carried to the rick: leaving it out in wind-cocks for weeks before being finally carried home, results in the formation of a lot of comparatively worthless

washed outwards. Mr. Baldwin estimates the loss as follows:—Within the last three or four years we have made agricultural tours through 25 of the 32 counties of Ireland; and from careful consideration of the subject, and having in some instances used a tape-line and weighing-machine to assist our judgment, we have come to the conclusion that one-twentieth of the hay crop of Ireland is permitted to rot in field cocks. The portion on the ground, as well as that on the outside of the cocks, is too often only fit for manure. And the loss of aftermath, and of the subsequent year's crop (if hay or pasture), suffers to the extent of from 6d. to 1s. per acre. If we unite all these sources, the loss

sustained annually in this country is something serious to contemplate. On an average for all Ireland, it is not under 20 per cent., or a fifth of the actual value of the crop. We have about 1,500,000 acres under meadow in Ireland, the average produce of which, last year, was 2 tons per acre. The total produce of hay was 3,000,000 tons, the value of which, at the current rate, would be, at least, £12,000,000; one-fifth of which (£2,400,000) is, as we have shown, lost by mismanagement to the Irish farmer.

**Bean and Pea and Flax Harvest** are referred to in the months of February and April, where their cultivation is discussed.

## AUGUST.

This is the harvest month. Wheat, Oats, Barley and Beans are being cut by hand and horse, and carried home as soon as ripe.

The *Horse-labour* accordingly, excluding such horse-hoings of green crops as still continue, is almost entirely confined to harvest operations. The reaping machine is being drawn or pushed, and the harvest cart or waggon is at work. The plough, too, is set to work as soon as the stubble is cleared, in preparation for Winter Beans and Rye and Vetches; and the ploughing of clover leas, either with or without a previous dressing of manure, goes on when possible for Wheat.

*Hand-labour* reaches in this month its greatest agricultural activity and intensity throughout the year, and accordingly wages are at their highest.

### The Cereal Grains and Harvest Operations.—

There are some particulars in the management of our cereal grains in which they are alike, and of which therefore a statement common to all of them may be made. All our White corn crops come generally in our rotations after green crops or manured fallow crops of some kind or other. Wheat succeeds Fallow, Clover, Beans, Turnips, Mangold Wurzel, or Potatoes. Oats come after Turnips or Potatoes or Mangolds, or newly broken up land or Clover. Barley generally comes after Turnips. The four-field rotation, Wheat, Turnips, Barley, Clover, is the general rule in England:—(1) Wheat or Barley; (2) Clover and Grass seeds; (3) Oats; (4) Turnips—or (1) Turnips; (2) Wheat or Barley; (3) Grass; (4) Oats; (5) Beans or Peas; (6) Wheat—are common rotations in Scotland. The cereal crops are generally considered the exhausting crops of the rotation; but it is evident that this depends on the cultivation to which the land is subjected during their growth, and on the use that is made of their produce. This idea nevertheless rules our rotations, these crops being taken when the land is, by previous treatment, at its best, and being followed by crops whose management restores the richness of the land. There are exceptions to this rule, but they obtain only where the land has acquired too great richness and needs depletion, or where it is in the hands of its enemies, *i. e.* of those who, having the power, are disposed to beggar it. In the ten districts of England Cole seed or Turnips are followed by Oats, and that by Wheat; the extra tendency to straw being taken off by the less valuable crop of grain, and so a possibility of a standing Wheat crop being obtained: and thus again, in the best managed land under the four-field rotation, that system is being modified by Wheat being taken after Turnips and followed by Barley. After folded Turnips, Wheat is found to be the best standing crop, and the Barley finds after it quite enough food to yield a crop without its being of so luxuriant a growth as to spoil the sample. Apart from these exceptions, however, the place of all these crops in the rotation is, and ought to be, after a manured crop, such as Turnips, Mangold Wurzel, or a crop which by its growth feeds the land, as Clover does; the clover root being in effect a liberal dressing of the soil.

The next general aspect of these crops is that presented by the question which has latterly excited a good deal of discussion, namely, thick or thin seeding; but it is not worth while discussing this question on general principles; it must suffice to refer to the data furnished by experience, with reference to each particular crop of the series, and this is done in the paragraph descriptive of each.

The cultivation proper to these crops is much alike, excepting the seed-time. The seed is generally sown in rows from 6 to 12 inches apart; the fields are harrowed or hoed when the crop is up, and they may be rolled or not, according to the condition of the soil. The crop is hand-weeded, if necessary, before coming into ear, and even after, if much weeds or the wild oat exist among it, which can be distinguished only after earing: and the harvest operations are pretty much alike for all.

Harvest-work in the corn-field is done either by contract or at days' wages; and the price per acre varies from 8s. to 12s., and even more per acre, according to the bulk of the crop. The corn is either mown, or reaped, or bagged. If mown to tie, it is best mown up against the standing corn, as otherwise the scythe is apt to cut the ears from the straw, as each new stroke is driven up against the swathe. A strong lad follows each scythe and gathers the corn in sheaves, laying them upon ties which have been pulled and placed by a child preceding him; another lad or woman ties: a man, two strong lads and a child thus make a party.

In "bagging," as it is called, a heavy hook is used: a wisp of straw is cut first and doubled up, or a stick is used instead, held in the left hand, and with the right the heavy hook is driven against the corn close to the ground, and so, by successive strokes, the corn is cut, perhaps a foot deep, up against the standing crop; the wisp or stick in the left hand serving to guide it to a standing place as it leans against the crop. A dozen such strokes will clear 3 or 4 yards in length, and the workman returning backwards upon his work, gathers what he has cut against his leg into a sheaf, and places it on a tie that has been pulled for him, and laid convenient.

In reaping, each man is of course more independent, pulling his own tie and making his own sheaf; though here also it is usual to have a bandster, who ties after several men or women. The sheaves should be about 10 inches in diameter, and as nearly as possible the full length of the straw. They are set up six of a side in sheeks or stooks, with two head sheaves, butt to butt, over them, as a roof: or they are sometimes set up only two of a side, with two small sheaves overhead, hanging, ears down, and tied together by a band, as is the practice in some parts of the midland counties. It is the general practice in England to mow the barley and leave it in swathe; but where the crop is tall and bulky, it is better tied in sheaves, whether it be oats, barley, or wheat.

The whole practice of harvest work is, however, being altered by the use of the reaper; which, as in the case of



Bell's or Burgess's, leaves the corn in swathes upon the land, and in that of Dray, Cuthbert, Gardner, Wood, and many others, leaves it in rather roughish bundles, to be gathered up and tied in sheaves. In all cases the corn should be cut and tied when dry; and this, in the case of most of those machines which have no side delivery, or one not far enough to move the corn out of the way of the horses on their next bout round the crop, needs to be done at once. Two horses (or a changed pair) may thus cut from 8 to 12 acres a day, and save the labour of 8 to 12 men.

The cost does not exceed from 5s. to 7s. an acre; instead of from 8s. to 12s. or 14s., which is the more common experience in the case of hand labour; and in every case a portion at any rate of the work should be done by contract, so as to make it the interest of the men to hurry on as fast as possible. The work of carrying away should in any case be done by contract. One man pitching to cart or waggon in the field, one lad building there, and one man pitching from the carriage to the rick, may form a party, and *their* share of the whole work may be let for from 10d. to 1s. per acre. Three carts, and two boys to lead them, and one man and a boy on the rick to build; the day labourers paid in addition by the farmer, who, with these three contract men, form a complete harvest party for the carriage and building of the corn; and a portion of the whole being thus let by the piece, drives the whole along with the force of self-interest.

The thrashing of the several crops is another operation, alike for all. Thrashing by machine may cost from 1½d. to 2d. per bushel, and by the flail from 2d. to 4d. per bushel, according to the sort and its yield. The cost of grain cultivation is considerably reduced by the improved means of realizing the produce which reaping machines and thrashing machines have furnished; but the chief value of the latter is in their enabling an immediate turning of the crops

into the market according to the prices which may obtain from week to week.

One more aspect in which these crops are related to one another exists in the diseases to which they are severally liable. Wheat almost alone, however, of them, is washed and pickled, as they call it, before seed-time; but they are all liable to injury from the disease against which this pickling is directed.

Smut or blacks more especially is common to all alike; it is the result of a fungus named *Uredo segetum*, which results in the conversion of the whole floret into a mass of sooty dust, which is dissipated generally before the harvest by the wind, so that the sample is not injured by it. Bunt, on the other hand, produced by another *Uredo*, results in a swollen discoloured seed, which is not necessarily broken by the thrashing, and so, sometimes, finds a flaw in the sample. On the kernel being broken, it is found to be full of a black stinking powder, which, if it gets between the mill-stones, spoils the flour, and so its appearance in the corn is more injurious than that of smut. It can be perfectly prevented by carefully washing the seed, so as to detach or destroy the germs of the fungus, which, adhering to the grain and sown along with it, become absorbed during its growth, bearing their mischievous fruit at harvest time. It is better, for this washing, to use a material of a somewhat caustic character, which shall thus more easily and completely detach and destroy these spores and germs without the labour of washing. A solution of blue vitriol, ¼ lb. to a gallon of water, thrown on a sack of wheat on the floor, will, on properly mixing the grain, wet the surface of every separate corn, and thus completely prevent all chance of the crop being affected by the bunt. This is the simplest pickle that is used. To float the grain in salt and water, and afterwards dry it with quick-lime, is not so easy nor so effectual, though it is still a common mode of treatment.

## SEPTEMBER.

Harvest work continues, and is generally completed in Southern England, only commencing however, very often, in some parts of the North. The grain is thatched as soon as it is in the rick. When harvest is over early, stubbles may be pared and burned, lime hauled on to Clover or stubbles to be ploughed in, fallow operations pursued, dung hauled out for spring green crops; Rye and Winter Vetches and Trifolium may be sown. This too is the best month for sowing Italian Rye Grass, and Wheat sowing may be commenced.

The *Horse-labour*, therefore, includes plenty of ploughing and cartage; and no month is more laborious in good seasons, when autumn cultivation is possible.

The *Hand-labour*, too, is laborious enough in harvest work, and in the fallow operations connected with the clearing of stubbles.

**Italian Rye-grass.**—Though it may be grown as a stolen crop to be mown once and its stubble then ploughed up for Turnips, or even as a green crop to be ploughed under for manure, or as a part of the ordinary seeding of grass land in rotation, or as a part of the seed to be used in laying down permanent pasture, it deserves description, as being a crop fit for cultivation by itself, yielding, after an autumnal sowing, as many as four or five cuttings in the following year of forage, which, if the land be rich and abundantly manured between the dressings, is of unequalled quality as food for stock. The land should be well tilled and manured, and three or four bushels of seed may be sown broadcast in September; and if three or four pounds of Trifolium incarnatum or White Clover are sown along with it, the crop is better worth cutting next year. There is no crop which will make such full use of whatever manure you may choose to apply. It covers the ground before winter, and comes to early maturity next spring. If kept well mown down as it attains sufficient head, it may be kept another year upon the land, yielding three or four cuttings. The rapid extension of its growth during the past few years is evidenced by the quantity of seed imported, which reaches now upwards of 40,000 bushels annually, whereas in 1830 only 160 bushels were introduced. The price then was 42s. a bushel, and now it is about 5s. or 6s., varying of course from year to year.

Italian Rye-grass prefers the adhesive class of soils, loams and clays. When sown alone, three to four bushels per acre of seed are used; in mixtures for permanent pasture, six or eight lbs. per acre are enough. When sown with clovers, one bushel per acre and twelve lbs. of mixed clover seeds suffice. The seed varies in weight, from fifteen lbs. up to as much as twenty-eight to thirty lbs. per bushel. The produce varies from six or seven up to sixteen or seventeen tons per acre for each cutting, according to the liberality of its treatment; and from two to five cuttings may be had a year, according to weather, dressings, irrigation, &c. When liquid manure is washed over the land after each cutting, or three or four cwt. of guano or sulphate of ammonia are spread broadcast and then washed in, the largest produce is obtained; and in Ayrshire several farms exist where this method has been adopted with the most extraordinary results as to yield, though with what results as to profit is doubtful.

The following is the history of an acre of such land so treated:—Four bushels of the Rye-grass seed are sown in September and brushed in and watered and left till spring. Its first cutting may be in May, when ten or twelve tons of green fodder are obtained from it, and the land is immediately dressed with three or four cwt. of mixed guano and sulphate of ammonia, and washed in with (one inch deep) 100 tons of water from the tank into which the

water of the cow-house flows. This flooding follows the cutting immediately; the Italian Rye-grass uses the ammoniacal mixture during the rapid growth which immediately ensues, and it soon covers the land, and hinders the growth of anything else. In five weeks the land will be again covered three feet high with a thick luxuriant growth, weighing at least sixteen to twenty tons per acre. This is cut and followed by another manuring in a similar manner, and a third cut of sixteen to eighteen tons may be expected towards the end of August, and a further manuring gives ten or twelve tons per acre in October. In spring another dressing with water and manure gives a cutting towards the end of April, and a second and third

cutting may be had in like manner, producing forty-five to fifty tons per acre, by the end of August. The land may then be broken up. During the two years that acre will have yielded between 80 and 100 tons of green food per acre, in seven or eight cuttings. By the use of a ton of guano, sulphate of ammonia, gas-water, &c., washed-in well, 700 tons of water and liquid manure, Mr. Telfer stated that his seven Scotch acres yielded 270 tons per annum.

When Italian Rye-grass is not liberally treated as to manure, it is liable to run to seed stems and straw, and to disappoint its cultivator.

## OCTOBER.

This is the seed-time for Wheat and winter Beans (*see* February), for various winter-sown spring forage crops, as Rye and Vetches, and the time for autumn cultivation, so that it is necessarily full of labour. There is a great deal also done this month in preparation of land for the Beans, Oats, Carrots, Mangold Wurzels, &c., sown next spring.

The *Horse-labour*, therefore, includes preparation of land for sowing Wheat and winter Beans, ploughing and cultivation of stubbles for the fallow crop of next year, and hauling out manure to the lands, to which, for these crops, it is to be at once applied.

The *Hand-labour* includes Potato digging, and all the labour of autumnal culture.

**Wheat Culture** is carried on successfully in every county in the United Kingdom. The fitness of climate for it is not so much a question of latitude as of elevation. There are districts in Devonshire quite as unfitted for Wheat culture, on account of climatal difficulties, as any in Scotland. During the past year the climate of most of the country has been on the very edge of that beyond which Wheat will not ripen, and accordingly the Wheat harvest has been almost unprecedentedly late.

The choice of a variety of seed is determined as much by the soil as by the climate. As a general rule, Red Wheats are harder than White; and, both on poor land and on fenny soils, especially in England, Red Wheats are preferred; they are less liable to mildews and to blights, and some of the sorts are more productive. The White sorts, on suitable soils, are of course more valuable per acre; for a sample of Fenton White Wheat, shown along with one of Browick Red, or perhaps along with one of the so-called Cone Wheats, presents as good an ordinary contrast as can be desired to illustrate the influence of quality upon sale. Several years ago, reports were obtained by the Highland Society of the relative merits of the Wheats then in cultivation, and the so-called Hunter's White Wheat proved in every case the most valuable, taking bushels and quality both into account. Since then many new sorts have been grown, and Browick, and Spalding, and Nursery, and Shirriff's new Red Wheat, and the April Wheat, also a red sort, are all first-class varieties of that class, while Fenton, Hopetoun, Velvet Ear or Rough Chaff, Red Straw, White, and many others are first-class White Wheats. For rich and straw-growing soils, the Fenton and the Velvet-eared White Wheats, and the Piper's Thickset, and the Spalding Red, all naturally short-strawed sorts, are to be preferred.

The land to bear Wheat may be after Turnips, Mangold Wurzel, Beans, or Clover. The Mangolds are pulled and carried home in October and November; their leaves may be either carried off or scattered evenly and ploughed under. If carried off, the land may be simply cultivated with the scarifier, and at once sown with the Suffolk drill. If the land be in good order and well drained, and the seed be sown early in October, one bushel of grain per acre (which contains 600,000 seeds, or about fifteen seeds for every square foot) is sufficient seeding. If sown later, it may be well to sow six pecks per acre. When Turnips are the preceding crop, a part is often fed upon the land by sheep, and the seed-time may be put off till January or February. After Beans, which have been manured in the drills, the land may be cross-ploughed if the ground be well drained, and the seed sown or drilled after a harrowing,

and left without water-furrows; or it is ploughed so as partly to cross the drills, still retaining the direction up and down the slope in ridges, one perch wide, which are harrowed, and sown, and water-furrowed; or, as is generally the case in the English culture of the Bean crop, which is sown either in nearer drills or even broadcast, leaving a stubble not so clean as may be desired; these stubbles are scarified, and parced, and harrowed, and burned, and then ploughed in ridges as aforesaid.

In ordinary management in England, however, Wheat comes after Clover. Patches of couch or other root-weeds are forked out after the haymaking, and the land is manured and ploughed in ridges about  $5\frac{1}{2}$  yards wide, a skim coulter being used, by which the grassy side of the furrow slice is completely buried. In light soils the drill presser, following every other plough, presses home the furrow, and seed may be sown broadcast with the certainty of its falling into these drills and coming up in rows; but, commonly, the land lies a month or six weeks, and is then harrowed down, and the Suffolk drill is used to sow the seed. The condition as to wetness in which the soil may be for Wheat, is not of any particular importance when sown in Autumn. It may, indeed, be so far wet as to cause some poaching by the treading of the horses without any harm coming of it. As to the proper seed-time, the object should be to have the young plant so far forward that in Spring it shall be in a condition to make the full use of the circumstances of Spring-time. Whenever Spring comes in the guise of Summer (as in some other countries), it is best to have a grassy full-grown plant fit to use all favouring circumstances of temperature and soil. When Springs are cold and backward, it is not of such importance to have an early plant. In the former case, Spring-sown Wheat will not produce a harvest; in the latter, Spring-sown Wheat is often as productive as any other.

The seed is to be pickled as already described (August), as a preservative against bunt, and when properly prepared it is sown by the Suffolk drill in rows, which may be a foot apart. An experiment by Mr. Morton, of Whitfield farm, in Gloucestershire, in which intervals at 6, 9, 12, 15, 18, and 24 inches were used, led to the conclusion that the interval of 15 inches was the best. In Spring-time the land is harrowed, or hoed, and rolled, and if very luxuriant, it is fed down by sheep, or flagged with a hook, or mown with a scythe (*see* May). The crop is ready to cut as soon as the grain will no longer yield a milky juice on being squeezed between the fingers. It has been proved abundantly that the last process of ripening is to form a

coating of woody fibre at the expense of the flour of the seed; and this, though possibly conducive to the fecundity of the grain, as seed, is injurious to it as food. It is best, therefore, to out the Wheat crop before the green colour has entirely left the straw; that is better fodder, and the grain is a better sample for this early cutting. The work of harvesting has been already described. The crop may be 20 bushels, or it may be 50; a good crop is 5 quarters per acre. There are more acres growing Wheat now than there used to be, and its progress probably extends with every extension of good agriculture. Thus, during the three

years of the Scottish Agricultural Statistical Inquiry, it measured from  $4\frac{1}{2}$  per cent. of the arable land in 1854, up to  $7\frac{1}{2}$  per cent. in 1857, the average in these three years being 168, 191, and 202 thousands of acres respectively.

The application of manure to Wheat may be so far referred to, as simply to declare that it is the general experience that in wet seasons 1 cwt. of sulphate of ammonia, or  $1\frac{1}{2}$  cwt. of nitrate of soda, or 2 cwt. of Peruvian guano, applied broadcast before or after Spring harrowing, are, on lands needing manure, amply repaid in the crop.

## NOVEMBER.

Wheat-sowing before winter should be finished in November. It is the harvest month for all kinds of roots. Potatoes should be all up and in safety early in November. Mangold Wurzel should be pulled and pitted. Last year a great destruction by frost took place in the last week of October. All Swedes which it is intended to harvest should be pitted as soon as possible. Carrots and Parsnips should be dug.

The *Horse-labour* includes, therefore, a great deal of cartage, and besides this, there is the ploughing and cultivation still pursuing of the stubbles, and of leas for Oats.

The *Hand-labour* of this month is very laborious wherever a great deal of the root crop is pulled and carried home. It includes too a good deal of work connected with the thrashing of grain, which now proceeds, if only for the provision of straw for cattle, which are now brought into their winter quarters.

**Tillage.**—We place a short account of this subject here, notwithstanding that it is earlier in the year when it is most available. The powers of a soil, both as a laboratory in which food for plants is prepared, and as a warehouse in which it is stored, depend on the quantity of internal superficies which it contains. All surfaces have great attractive power, by which they retain the particles which touch them. It is this surface attraction which causes water to rise in the sponge; and when the quantity of internal surface is very great in a given quantity of any porous body, it exerts enormous power of retaining and absorbing that which it holds. A clay holds firmer than a sand what it contains, just because of the enormously greater surface in a given quantity of it, which, owing to its much finer particles, it possesses. And it was Jethro Tull who first attributed the fertilizing effects of tillage operations simply to their influence in breaking down the soil, and so increasing the extent of inner surface which a given quantity of soil would then contain. This greater surface both attracted and collected a greater quantity of the fertilizing particles of the air, and gave greater scope for the rain-water to dissolve out the fertilizing particles of the soil, and it afforded a greater pasturage, so to speak, from which the roots of plants could gather the greater abundance of food which was thus provided for them. And after all that has been said and written since Tull's time, this is as nearly as possible all that can be said of the way in which fertility depends on tillage.

Tillage includes those field operations of the farm whose object is the production of tilth,—a state in which land, neither hardened by drought nor saturated with water, is so far reduced to powder that air and moisture have free access throughout it.

Some years ago, in a lecture before the Highland Society, Dr. Madden, now of Brighton, exhibited diagrams in which he represented soil in the state to which ploughing, harrowing, and rolling bring it, as actually observed under the microscope. His figures represented it as a collection of particles full of pores and cavities, the channels between the particles being filled with air, while the particles themselves were saturated with water. It is probable that, to some extent at any rate, these diagrams were speculative—not strictly pictures of what the microscope really exhibited; but it is certain that they tally in some very important points with the known results of tillage operations on the soil. Thus, in the first place, well-stirred soil holds more air than it previously did. This will be plain to any one who shall dig a hole in the hardened ground, and then attempt to restore the earth he has taken out: the heap

remaining over, which he cannot replace without pressure, thus obviously indicating the bulk of additional air which has been introduced into the land by disturbing it. And that by tillage the quantity of moisture retained by the soil is greatly increased, is plain to any witness of the effect of horse-hoeing between the rows in a turnip field previous to and during a drought. That both air and moisture should be more largely held in a soil after tillage might be expected from the fact that all tillage operations, by reducing clods and breaking up fragments in the soil, and so multiplying the number of particles in a given quantity, increase the quantity of surface within the soil—that *internal superficies*, as Jethro Tull called it, on which, as *he* saw, the quantity of food for plants which the soil provides so materially depends, and on which, as we now know, not only does the extent of pasturage for roots depend, but the quantity of that absorptive power as well, which enables the soil to gather from the air ammoniacal and other matters fit for use by plants.

If we still use the language of theory, then it appears that tillage promotes fertility by increasing the *quantity of surface* within the soil off which rain-water can wash the food of plants already there, on which, by direct attraction, atmospheric food for plants will gather, and *by means of* which the vegetable and other matters capable of supplying food for plants are spread out for more easy treatment by the chemicals of the air, the water, and the land. As to the influence of air and of rain-water upon the mineral matter in the soil, the actual manufacture of the soil from the parent rock is a sufficient illustration; and their influence on the vegetable matter in the soils is proved by the disappearance of the manure which we apply, and by the fact, of which the chemist tells us, that while there are only four parts of carbonic acid gas in 10,000 parts of common air, that taken from a soil manured seven months before contained twenty times as much, while the air of a recently manured soil holds 200 times the quantity of carbonic acid, the product of the chemical decomposition of vegetable fibre.

The real extent, therefore, of any farm, is not merely that which meets the eye, or is exhibited on the map; it is the quantity of inner surface on which the roots can feed, as well as the quantity of outer surface on which the crop can ripen, that ought to be taken into account, and that is taken into account when anybody goes on the land to value it.

The truth, in short, may be represented thus:—The increase of our crops, in so far as it depends upon the soil, depends on that which water can extract from it, for it is



only what is soluble in water that is useful to the growing plants; and thus fertility bears a very important relation to the quantity of the land—the quantity not merely considered as so many cubic yards, but rather as furnishing so much internal surface on which water operates as it passes by. Drainage increases fertility by inducing this passage of the water, and tillage increases fertility by facilitating this passage, and by multiplying the surface by which it passes.

And this is true, notwithstanding that some tillage processes seem to act in other ways than by loosening the ground. Ploughing, harrowing, and scarifying the land act apparently as dividers and looseners of the soil, while rolling and pressing, also important tillage operations, seem to harden it. It must be remembered, however, that the object of cultivation is not merely, in general terms, to provide constant and liberal supplies of food for vegetable growth; the object of the cultivator is to procure a crop of a certain plant; the particular habit of growth which nature has conferred upon that plant has therefore to be consulted, as well as the laws affecting vegetable growth in general; and hardening of the soil may be required in particular cases, as that of wheat, while a looseness of the soil, as in that of turnips, &c., may be desirable in others. We must accommodate ourselves in this to those wants of the plants we cultivate, which must be taken as ultimate facts resulting from the character they have inherited.

Rolling nevertheless has this in common with the strictly tillage operations, that it reduces clods and masses into particles and powder; it breaks old contacts and effects new ones within the soil, and so, like ploughing, harrowing, and stirring, multiplies the active surface within the soil. And thus it does in fact stimulate that chemical action within the soil on which fertility depends, just as much as that is done by stirring it with plough and harrow.

But let us leave the definitions and explanations of the theorist, and hear the purposes of his tillage operations from the practical man. He says, "I plough to cut off from the general mass of matter a definite layer on which I can afterwards operate more efficiently; and the purpose of these subsequent operations is to remove the natural growth of the land, and so far to reduce the soil in which it grew to powder, as that rain shall easily permeate the whole without clogging it together. I plough to bury the manure which I lay upon the surface so prepared. I plough to lay up the land for exposure to that most efficient of all tillage processes, the alternate rain and drought, warmth and frost of weather. I harrow in order that the clods may be broken which previous operations may have failed to break, and in order that the weeds and filth may be dragged to the surface which previous operations may have failed to remove. I roll, too, in order to break surface-clods, in order to keep-in moisture, in order to level the surface for the even action of other implements, the cultivator, the reaping-machine, or scythe; in order to confer that hardening of the land which some plants require. The object of my tillage operations is to remove all weeds, to bury manure, to prepare a seed-bed, to have a softened soil in which my plants can swell with unrestricted growth. The seeds I sow need to be in contact with air and moisture in order to their permeation, and they must therefore be covered with particles of moistened earth smaller than themselves; and thus the smaller seeds, as those of Grass, of Clover, of the Turnip, need a finer tilth than the larger seeds, as those of Barley. And as after germination the young plants need scope for the ready extension of their roots and stems, so tillage operations are needed deeper before seed-time than the mere act of germination would demand; and they are needed after germination,

especially in the case of large-stemmed plants, as the Turnip, the Potato, or the Mangold Wurzel, in order to permit the easy enlargement of those parts whose growth I want. But, from the beginning to the end of the annual tillage of my land, one object of all my tilling operations is the destruction of weeds."

A writer on Bare Fallow some years ago, evidently taking his cue from the report of the mere labourer as much as of the intelligent practical farmer, enumerates all the supposed objects and effects which the chemistry of those days suggested, as the aim and end of the results of cultivation which the process involves, only to exclaim, in derision of them all, "The sole purpose of following is to destroy weeds!" The destruction of weeds is an object of tillage operations certainly, and if they cannot be destroyed year by year under good farm management, the gradually increasing accumulation requires this periodical bare fallow to effect their destruction, and so far the Reviewer was right in his assertion; nevertheless the main object of tillage operations is not to destroy, but to produce, to increase the quantity of food within the land in order to its conversion into food for man and beast by plants upon its surface.

It is plain that the practical and the theoretical accounts of the matter are perfectly consistent, and tillage operations have at once the effect of forming the seed-bed, of loosening land to enable unrestricted growth within it and upon it, and of destroying any plants but those we wish to grow; at the same time that the soil, by the reduction of its substance, is thus enabled to present within a given bulk a greater quantity of surface, so as to act as feeding-ground for plants and as a warehouse of their food. Both farmer and philosopher will thus agree in the effects of deep and thorough tillage of the soil.

As to the practical methods to be adopted in order to attain the condition which we call tilth, it is only necessary to refer to the fact that in the course of half-a-dozen years arable land generally receives a dozen ploughings, twenty to thirty harrowings, besides sundry scarifyings and horse-hoings, and repeated uses of the roller both in drought and directly as a tillage implement, in order to prove how cumbrous a process tillage generally is. The increased use of the scarifier as compared with the plough, and the extension of Autumnal culture, seem to be the principal moves towards simplifying the process of late years. Add to this, the adoption and extension of steam culture, and the improved drainage of the land as facilitating all these operations, and it will be admitted that progress hitherto has not been small. Great economy is obtained by properly timing the uses of all these operations. Besides the need of fitting what is done in the field to the actual weather of the day, there is the need, especially on clay soils, of fitting the great tillage operations of the year to the average weather of the season. There seems an advantage on clay soils in the deep and thorough tillage of the stubble when dry in Autumn, which is so remarkably greater than the advantage of the same processes at any other time, that some special explanation seems almost to be needed. The explanation probably, however, is no other than that which ordinary tillage operations receive, the greater effect arising from its being done in the dry, and followed by the frost. Whatever the explanation may be, the fact is unquestionable, and any means of cheapening Autumn tillage, or of increasing our power at that season of the year, will be welcome to all clay-land farmers. These means exist in the application of steam power to cultivation. Whether by Fowler's or the Woolston apparatus, it may now be generally believed that by steam power land can be better ploughed and better cultivated, more cheaply ploughed and more cheaply cultivated than by horses.

## D E C E M B E R.

The winter's work has now fairly set in, and earriage of materials, of grain, of dung, of marl, and clay, and lime, with occasional ploughings of the stubbles when the weather permits, occupy the horses.

The *Hand-labour* is confined to attendance on stock, to thrashing grain, to mending roads and fences, and to land drainage.

**Land Draining.**—This, on all soils where there is no natural drainage for the rain-fall, is now universally considered an essential to good agriculture. A short reference to the theory and the practice of it therefore must be permitted in our Calendar.

It is properly Winter's work; the ground is softer and more easily dug; the land is wetter and betrays more plainly the need of the operation: water gathers, and there is no levelling needed to show the "fall."

(1) Let us first refer to the theory of the operation. Rain-water is needed to feed the plants, for it contains oxygen, carbonic acid, ammonia, and nitric acid, so that it not only acts chemically on ingredients in the soil which it thus prepares as food for plants, but it is itself, in respect of some of these ingredients, the food of plants.

Water gets into the soil as rain-fall on its surface, as spring-water rising from below, and by capillary attraction drawn up from below. Water leaves the soil by running over its surface, in which case it leaves its work, as the feeder of the plants, altogether undone; by evaporation from the surface, in which case it reduces the temperature of the land; and by percolation through its substance, warming the soil in its passage, introducing its own ingredients as well as the air which follows it, and feeding the plants with the substances it has dissolved from the land as it passes by their roots. Notwithstanding that on its escape, after percolating through the soil, it contains, dissolved in it, a considerable quantity of fertilizing matter, yet this is not nearly so much as would be expected by a person ignorant of those absorptive properties of soils, which Professor Way has investigated, and by which the ammonia, both of rain-water and of manure, is retained in a comparatively insoluble state, so that the percolation of water through the land is not so wasteful a process as it otherwise would be. It is this absorptive property of soils that explains that great agricultural paradox which meets the student on the very threshold of his readings on the chemistry of agriculture. He is told that agriculture is simply a food manufacture; that the produce of its processes is made of materials existing in the air and soil; that only substances soluble in water are available for this purpose; and yet, of the whole mass of mineral matter concerned in this manufacture, not only does he find that it is thinly spread as a soil some 6 or 8 inches thick in a layer over an enormous surface, and then washed annually by 4 or 5 times its own bulk of rain-water—one of the most powerful natural solvents—but that positively this manufacture is most productive, its produce largest where this solvent is permitted to run through the land in its escape downwards to the sea. Fresh from the manipulations of the laboratory, acquainted with the processes by which precipitates are deprived of any soluble mixtures which they may contain, having himself patiently superintended the washing of earthy deposits on his filter in order to remove any soluble matter which they contain, how is he to reconcile the assertion of science, that

fertility depends on the preservation of soluble matter in the soil, with that of practice, that fertility depends very materially upon your enabling the water which falls upon the surface of the land to pass through its whole thickness and escape through channels in the subsoil? Mr. Way has satisfactorily removed the difficulty. Not only does rain-water, when allowed to traverse this layer out of which our food is made, improve the underground climate, on which, as we know, the luxuriant growth of plants materially depends; not only does it by its passage act as waiter at the repast, carrying food to the roots of the growing plants; not only does it bring to the soil the riches of the air, and so add to its wealth as a well-filled store-room; not only does it, by the addition which it thus supplies and the activity which drainage gives it, and its own solvent powers, make the whole an entire laboratory in which food for plants is being prepared for use; but its liability to waste the contents of this store-room and the products of this laboratory, by the access and egress which it possesses, is held in check; so that a fertile well-drained soil is really not only one of the pleasantest sights on which the eye can rest, but one of the most beautiful specimens of ingenious and conservative contrivance on which the mind can dwell.

(2) In practice, this percolation of rain-water through the soil on which it alights, is obtained by digging drains 4 feet deep and from 18 to 20 feet apart, placing in them 2-inch pipes, having first provided an unchecked outfall for them at the lower end of the field. The results of this expedient are, that we have greater facility and economy of cultivation; tillage is made both easier and more efficient; and we have a changed climate—one which, if it be not changed to the feelings of animals, is wonderfully changed as regards its influence on plants. The difference of a few degrees in the underground climate of the soil causes a most material difference in the regions of vegetation and the fitness of the land for potato crops. The mean temperature of the soil round Edinburgh is stated to be 52° during the summer months. It is on the authority of Dr. Lindley that we learn, if it were to fall to only 47°, it is doubtful if wheat would ripen well, or indeed at all. And the earliness of harvest, which is due to drainage, is owing not only to an improved underground climate, but also to the constant feeding of the plants which we thus obtain. In undrained land we have occasional starvation of the plants; and comparing growth to an erection, and ripening to its completion, the process is the sooner finished, and more complete when done, for its continuous prosecution. These are the three great results of artificial land-drainage when no natural drainage exists—cheaper cultivation, better underground climate, and continuous and abundant plant-feeding. They produce amongst them an earlier and more productive harvest, and justify us in describing the drainage of wet and drying soils as a fundamental agricultural necessity.

## PARMENTER'S PATENT PREPARATION.

We wish to direct your attention to the above Preparation we are now selling for the destruction of *Mealy Bug*, *Red Spider*, *Thrips*, *Scale*, *Aphis*, and all kinds of Insects, also *Mildew* on Vines, Fruit Trees and Plants of all descriptions, of which we are the Sole Proprietors; it has been proved to be the most effectual application ever offered for the destruction of Insects.

### LIST OF PRICES.

Small Stone Bottle with Brush, 2s. Middle ditto, 3s. 6d. Large ditto, 10s. 6d.

*The following is the report of a series of careful and elaborate experiments by the eminent Nursery Firm of Messrs. E. G. Henderson and Son:—*

PARMENTER'S PREPARATION.—We find this Compound effectual for the destruction of *White Bug* and *Scale* on leaves of a laurel-like texture, such as *Daphne*, *Nerium*, *Jasmin*, *Enkianthus*, *Rhododendrons*, *Thibaudias*, &c., in the greenhouse, and such as *Ixora*, *Croton*, *Franciscia*, *Gardenia*, *Jasmin*, *Magnolia*, *Portlandia*, *Stephanotis*, &c., in the hothouse, when dipped in a thin paste-like liquid, and applied with a brush into the inward axillary joints: after thus remaining on the plant 48 hours, it is thoroughly cleansed off by a vigorous syringing. When applied to plants within a cool genial greenhouse temperature, it emits no offensive odour (as in the Gishurst Compound), and is efficacious without injury to the plants. On plants of *Josminum grandiflorum* recently imported from the Continent, and completely covered with *Scale*, and on *Ardisia crenulata*, much infested with the *White Bug*, THE PREPARATION AS DESCRIBED WAS VERY SATISFACTORY. It also appears effectual in destroying and checking the *Red Spider* and *Thrips*, by immersing the branches once or twice in a thinner solution of the Preparation.

On plants with leaves of a less leathery and more porous texture and thin and pulpless, the Preparation cannot be applied sufficiently strong at one immersion to destroy the *White Bug* or *Scale* (the most difficult of all plant insects to destroy) without injury to the plants; therefore it should be made in a weaker solution, and applied with a soft brush or sponge to the infected parts, remaining on 24 or 48 hours as before. For the continual cleanliness of the plants, a solution of the Preparation in pure water for occasional syringing will be found very beneficial and act as a *check and preventative*. In the destruction of the *White Bug* and *Brown Scale* upon the class of plants referred to, *Parmenter's Preparation* was found more effectual than the *Gishurst Compound*. In its application the following directions may be deemed safe:—

1st. The strength of the application, without injury, will be in proportion to the thick coriaceous or leathery texture of the leaves, their dormant condition or rest from growth, and *vice versâ*.

2nd. The injury arising from its undue application will be in proportion to its action on the soft and delicate cellular tissue of the plants, whether in a growing condition or not, but most injurious in the former.

3rd. As a general rule, plants of the strongest and most robust growth will require it to be applied of the consistency of thin paste-like liquid.

4th. Plants of the soft-stemmed class, whether heavy or soft, will require its application by immersion in a mixture proportionately diluted to suit the texture of the plants.

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*Extract from a letter received from Mr. THOMAS RIVERS, Author of 'The Orchard House,' the Nurseries, Sawbridgeworth, Herts:—*

"ONE APPLICATION OF THE COMPOSITION UNOILTEO TO SOME ORANGE TREES INFESTED WITH THE BROWN SCALE EFFECTUALLY DESTROYED IT; a small painters' brush was used in applying it."

*Extract from a letter received from Mr. SUMMERS, Gardener to A. Mongredien, Esq., Sydenham, "the raiser of Spargula pilifera:—"*

"WITH RESPECT TO THE DESTRUCTION OF INSECT LIFE, ESPECIALLY OF THE SPECIES AND VARIETIES OF COCCUS, WE THINK IT FAR SUPERIOR TO THE GISHURST COMPOUND, AND IT LACKS THE VERY DISAGREEABLE SMELL OF THE LATTER."

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## PATENT APHIS PASTILLES.

The only Cheap means of Smoking a Greenhouse. Half the price of Tobacco—ininitely more effective—destroy all Insects, and cannot injure the foliage. These Pastilles light with a candle—need no further attention. Price 2s. per packet.

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## DUNN'S PATENT SOLID MARKING-INK PENCILS.

*Directions for Use.*—Slightly damp the surface of the Tally or Label, whether of Wood, Parchment, Zinc, Galvanized Iron, or unglazed Porcelain, with the wet finger, and write thereon whilst damp; expose the writing to light in a dry place (Sunlight if possible), and it will become fixed and permanent. N.B.—Do not screw the Pencil Point out too far when in use. Price 1s. 6d. each.

FINIS.

Taylor and Francis, Printers, Red Lion Court, Fleet Street.



ILLUSTRATION No. I.



ZINNIA ELEGANS FLORE PLENO (Carter's variety), per packet 6d. and 1s.

## NEW SPECIES AND VARIETIES OF FLOWER SEEDS.

The subjoined Seeds we have selected for recommendation from their being either desirable new varieties or old-established favourites *highly improved* by careful cultivation. We regret to mention that, in consequence of insufficiency of space, we are unable fully to describe the particular merits of each kind, and can only state that *all* the undermentioned deserve unqualified praise.

### ILLUSTRATION No. I.

#### *Zinnia elegans* fl. pl.

*Received a First-class Certificate*

From the Horticultural Society of London, who described them as follows:—"These were varieties of the well-known *Zinnia elegans*, in which the yellow centre or disc was transformed into florets, like those of the ray, so as to form rosettes of from 2 to 3 inches in diameter, and of various shades of colour, embracing *purple, deep rose, light rose, mottled rose, red, orange, and buff*. They were for the most part full double, and perfectly regular in form, a good deal resembling in their outline a fine double French Marigold, but larger in size." This magnificent novelty was first introduced by us into England, and our stock is undoubtedly the finest in existence; all single flowers have been removed, and the seed is saved from five double flowers only. *Price per packet, 6d. and 1s.*

### ILLUSTRATION No. II.

#### *Clarkia pulchella* flore pleno.

*Received a First-class Certificate*

From the Royal Horticultural Society of London, and described in the Society's Report of July, 1861, as follows:—"This was a handsome variety of the *deep rosy colour* of the better forms of this well-known species, but having three or four whorls of petals, developed so as to form a tolerably full double flower; it was a very showy plant, and was awarded a First-class Certificate."

This is but the 3rd Annual which has received a First-class Certificate; it is thus spoken of in the *Gardeners' Chronicle*, p. 869:—"The double variety of *Clarkia pulchella*, a new and desirable plant for ornamental purposes of all kinds, the flowers being *very double*, and the colour a *rich Magenta*." *Price per packet, 1s.*

### ILLUSTRATION No. III.

#### *Oenothera Lamarckiana*.

*"Commended"*

By the Royal Horticultural Society. Hardy biennial, flowering the first year, height 3 feet, good shrubby habit; blossoms more than 3 inches in diameter, colour bright *golden yellow*; each plant will produce from 200 to 600 flowers, and continue in bloom from June to November. Dr. Lindley speaks of it in the *Gardeners' Chronicle* of 28th of Sept. 1861, p. 869, as follows:—"Among dwarf *Oenotheras*, macrocarpa still stood in the front rank, and among tall kinds *O. Lamarckiana* occupies a similar position; it blooms the first year from June to October in great profusion; individually the blossoms are of immense size, averaging 4 inches in diameter; on one plant alone of this variety we counted no fewer than 23 blossoms, *all open at the same time*." *Price per packet, 1s.*

#### *Grammanthes gentianoides cinnabarina*.

A handsome variety of the much admired Rock and Pot Plants, *Grammanthes gentianoides*, deserving of universal cultivation; colour *erimson-scarlet*. *Price per packet, 6d.*

#### *Tropaeolum "Crystal Palace Gem."*

Thus described in the Report of the Royal Horticultural Society of London:—"This was one of the Dwarf or Tom Thumb varieties, and was stated to have been obtained from T. Seheuermanniaum. It was of dwarf habit, with large *sulphur-coloured* flowers, with a *dark red spot* at the base of each petal."

It is very pretty and effective as a bedding plant, the flowers being well thrown up above the foliage, and it continues in bloom until the frost. It is thus spoken of in the *Gardeners' Chronicle*, p. 869:—"Then came 'Crystal Palace Gem,' a new bright *sulphur-coloured* *Tropaeolum*, blotched with *maroon*; the habit is excellent, and the leaves much smaller than those of the common *Nasturtium*, over which they have the advantage of throwing their blossoms well up above the foliage;" *seed scarce. Price per packet, 6d.*

#### *Senecio elegans flore pleno. "Magenta."*

This is a very double variety of the well-known *Jacobaea*; colour a bright rich *Magenta*, contrasting admirably with the foliage; will be found a very useful and ornamental bedding plant. It is described in the *Gardeners' Chronicle*, p. 869, as follows:—"Attention was then directed to some charming beds of *Senecio*, the most striking of which was one of a *brilliant Magenta colour*, literally one mass of bloom." *Price per packet, 6d.*

#### *Alyssum saxatile compactum*.

Described in the *Gardeners' Chronicle*, p. 869, as follows:—"A fine early-blooming hardy perennial, which will form a good companion to the early white *Arabis alpina*, and the pink *Saponaria oeymoides*."

We can especially recommend this desirable hardy perennial as being particularly useful for early Spring bedding, also for Rock-work; it is dwarf, and very compact in habit, with ornamental glaucous evergreen foliage, profusely covered with rich *golden yellow* blossoms, continuing in bloom from March to May, a period of the year when outdoor flowers of a showy character are very scarce: this variety is entirely distinct in habit and colour from the *Alyssum saxatile*. *Price per packet, 6d.*

#### *Nemesia compacta insignis*,

#### *Nemesia compacta La Superbe*.

These are two new varieties of that charming Annual *Nemesia elegans compacta*; their graceful and compact habit, like *Thuja compacta*, and their profusion of blossom render them valuable adjuncts to the flower garden; they also form excellent pot plants.

*N. insignis, bright blue* } height 1 foot.  
*N. La Superbe, delicate rose* }  
*Price per packet, 6d.*

#### *Aquilegia caryophylloides* fl. pl.

*"Commended"*

By the Horticultural Society of London, and described by them thus:—"This was a very pretty double-flowered variety of the common *Columbine*; the flowers were *white*, variously striped with *reddish crimson*, and here and there with *reddish purple*, producing an effective variegation. It was stated to have been selected out of a bed of mixed colours, and to have been proved to come true from seed. It was also stated to be quite distinct in the seed, which is of a light green, instead of being black, as is usually the case. The variety was considered distinct and handsome, and was commended." *Price per packet, 6d.*



ILLUSTRATION No. II.



CLARKIA PULCHELLA FLORE PLENO ..... per packet 1s.



## NEW SPECIES AND VARIETIES OF FLOWER SEEDS (continued from page 114).

### **Trifolium arvense.**

This is a remarkably elegant Arabian Ornamental Grass; very dwarf and compact, silvery foliage and flower-stalks, with a profusion of minute heads of blossom, similar to *Lagurus ovatus*, but more slender. *Price per packet, 6d.*

### **Oenothera campylocarpa grandiflora.**

This is a marked improvement on the old *Oenothera campylocarpa*, and the colour, which is *crimson-orange*, is a striking novelty among *Oenotheras*; the blooms are 2 inches in diameter. *Price per packet, 6d.*

### **Nemophila maculata folio variegata.**

This is a very useful Annual for Spring gardening, the leaves being ornamentally variegated before the plant comes into bloom; seed scarce. *Price per packet, 6d.*

### **Covent Garden Intermediate Stock.**

Of these we have two splendid varieties, the same as those so much approved of at Covent Garden Market, one *scarlet*, the other *pure white*. *Price per packet, each 1s.*

### **Hunneemannia fumarisæfolia.**

This is a most desirable re-introduction: it has the foliage of the well-known *Eschscholtzia*, but is of an *erect* habit and has numerous blossoms of bright yellow; similar in shape to *Tulipa sylvestris*. *Price per packet, 6d.*

### **Linaria bipartita splendida.**

"Commended"

By the Horticultural Society of London, and described by them as "a very fine and richly coloured Annual, flowering profusely and continuing for a considerable time in bloom; the habit was erect, like that of the older forms, and the flowers were large, of a very rich *deep purple* colour. Messrs. Carter & Co. stated that they had full confidence in its being fixed in character, as it had been carefully selected for the last 7 years: this received a commendation." *Price per packet, 6d.*

### **Convolvulus tricolor subcæruleus.**

A very pretty *dove-coloured* variety, having about half the depth of colour of *Convolvulus minor*, blue. *Price per packet, 3d.*

### **Convolvulus tricolor monstrosus.**

Described in the Horticultural Society's Report as "Very robust, with large and exceedingly rich *deep-purple* flowers." It is also mentioned in the *Gardeners' Chronicle* of July 28th, 1860, as follows:—"A handsome *Convolvulus*, named *tricolor monstrosus*, was shown by Messrs. Carter & Co., of Holborn." *Price per packet, 6d.*

### **Erianthus Ravennæ.**

This is a splendid Ornamental Grass, similar to the Pampas Grass, but with a broader leaf, with a white rib down the centre of each blade: for centres of lawns and corners of large beds it is specially adapted, and is very graceful. *Price per packet, 1s.*

### **Erysimum Arkansanum.**

This Annual has been much overlooked, and will in future rank among the finest of yellow flowers: height about 1½ ft.; colour rich golden yellow: blooms in bunches, like the Perennial Phlox. *Price per packet, 6d.*

### **Gilia achilleæfolia alba.**

"Commended"

By the Horticultural Society of London, and described by them as "A pretty variety of this useful species, having the flowers pure white: it was commended on account of the purity of its *white* flowers, which will render it useful for beds where Annuals are employed." This is an early profuse- and long-blooming variety. *Price per packet, 6d.*

### **Eucharidium grandiflorum album.**

Described by the Horticultural Society of London as "A neat dwarf-growing *blush-white* variety, which may probably be useful where light colours are in request." This variety is dwarf and compact in habit, and a long and profuse bloomer. *Price per packet, 6d.*

### **Eucharidium grandiflorum roseum.**

Described by the Horticultural Society of London as "A *blush-coloured* variety, apparently rather larger than the foregoing, but more flushed with *rose-colour*." A plant of each was sent to Dr. Lindley, who speaks of them in the *Gardeners' Chronicle* of September 22nd, 1860, as follows:—"One of them is *white*, or nearly so, the other is stained with *pale rose*; they are pretty and distinct." *Price per packet, 6d.*

### **Cuphea zimpani.**

This is one of the best of the bedding Cupheas, and, from its profuseness of blossom and duration of bloom, will be much admired: colour fine dark purple. *Price per packet, 6d.*

### **Celosia aurea pyramidalis**

AND

### **Celosia, new crimson feathered.**

These are really magnificent plants for Greenhouse or Conservatory decoration, and have been universally admired at the various Exhibitions where they have been shown. The one has a *rich golden-yellow*, and the other a *rich crimson* plume of blossom. *Price per packet, each 1s.*

### **Clianthus Dampieri.**

This magnificent plant is too well known to require comment, as it is admitted to be one of the very finest greenhouse plants ever introduced. *Price per packet, 2s. 6d.*

### **Lapageria rosea.**

This superb Climber is one of the few plants that are indispensable to every greenhouse, its rich rosy-marbled unilar bell-shaped blossoms continuing in fine condition for six weeks, and altogether it is the finest Greenhouse Climber in cultivation. *Price per packet, 2s. 6d.*

### **Delphinium grandiflorum cœlestinum.**

A new variety of this handsome hardy perennial with long spikes of clear celestial-blue flowers. A very desirable variety for borders and shrubberies. *Price per packet, 6d.*

### **Camellia japonica.**

The seeds now offered were saved in one of the Royal Gardens in Italy, and probably from the finest collection of varieties in that country. The produce from the seed cannot fail to give many valuable and interesting novelties. *Price per packet, 1s.*

ILLUSTRATION No. III.



CENOTHERA LAMARCKIANA ..... per packet 1s.



## NEW SPECIES AND VARIETIES OF FLOWER SEEDS (continued from page 116).

### *Erythrina*, varieties.

These magnificent Shrubs, commonly called "*Coral Trees*," are usually grown in the greenhouse; but in favourable seasons they may with safety be placed out of doors in summer, where their dense foliage and splendid racemes of brilliant crimson blossoms will show superbly. See Nos. 943 to 946. *Each, per packet, 1s.*

### *Gynerium argenteum*.

This is the Pampas Grass, the merits of which are too well known to need recapitulation. The seed offered, being imported from the district of the River Plate, will be found to germinate freely. *Price per packet, 1s.*

### *Linum luteum corymbiflorum*.

A handsome half-hardy variety of Flax, with hundreds of bright straw flowers on each plant. This is quite as handsome a variety, *of its colour*, though different in habit, as the well-known scarlet *Linum*, to which it would form an excellent contrast. *Price per packet, 6d.*

### *Pentstemon Murrayanus*.

This is by far the most handsome species of this much-admired genus, having numerous long tube-shaped flowers of a bright vermilion. *Price per packet, 1s.*

## SPERGULA PILIFERA.

This admirable substitute for Lawn Grass has stood the severest tests; and is now rapidly rising in public estimation. We annex an Extract from an Article upon it, written by Mr. SHIRLEY HIBBERD, in the 'Gardeners' Weekly Magazine.'

### LAWNS WITHOUT GRASS.

In making our remarks last week on the causes of the wretched appearance too often presented by grass lawns, and the proper remedies for certain of their defects, we said nothing about substitutes for grass, because the subject is too important to be dealt with in a casual way. The time is fast approaching, however, when we shall have to say, in our descriptions of gardens, what sort of turf is used—the word "turf" having already several different significations. The reader perceives already that we are on the tract of *Spergula pilifera*, and, mayhap, has already a feeling of repugnance to any so-called substitute for grass; certainly there is repugnance in many quarters, and we may as well own at once that, for general purposes, a grass turf cannot be superseded by turf of any other kind. But among the large number of gardeners who speak of *Spergula* as "humbug," how many have really seen it? Of those who have seen it, how many have seen it as it should be seen, and as it may be seen under proper management, well established, and in the best possible condition for a fair judgment of its merits? Very few we imagine. Now seeing is believing, and no one who has visited the garden of Mr. Mongredien, at Forest Hill, has been disposed thereafter to say a word against the *Spergula*, for it is the most remarkable innovation of the present century in the matter of garden furniture. For the information of those who have had no opportunity of making acquaintance with good samples of *Spergula*, we may state that, as brought to perfection in Mr. Mongredien's garden, it forms a thick, moss-like felt, close as piled velvet, vivid in its greenness of tint, soft and elastic to the foot, dense in growth, and as even on the surface as the smoothest lawn newly mown, but without any mowing at all. This is a land of freedom, and let every man hold and express his opinions freely; but opinions founded in ignorance of facts are worth nothing; but all that has been said against *Spergula* has been so said, and comes to nothing.

But the great question is, will it supersede grass? For certain purposes it will not only supersede grass, but allow of the accomplishment of what, with grass, it would be impossible. It forms a close evergreen mossy felt; its habit is procumbent; it endures drought with patience when well established; is improved by being rolled and trodden on, and is more uniform in character than any other turf, because formed of one species instead of many. Hence for small lawns laid out for geometric gardens, for broad terrace verges, and for every kind of fancy work, where the most perfect specimens of turfs are essential features, *Spergula* is as much better than grass, as real grass is better than a turf of crowfoot and eanomiles. But it will probably never supersede grass for large extents of lawns, because its culture is a nicer undertaking. In less than three years we believe it to be impossible to form a dense turf on a large scale, and during that period it would require frequent attention. The original announcement that it needed no mowing, though truthful—for it neither needs mowing, nor would mowing be possible—has nevertheless proved injurious to it. People supposed that as it would not need mowing, it would occasion less trouble than grass, whereas there must be more trouble expended on it to do it justice, and therein lies the secret of success. Being of humble growth and spreading laterally, weeds have their own way amongst it, until it has completely covered the ground and secured full possession. Grass, plantain, and groundsel are the first enemies that assail it, and with these come the various other weeds peculiar to the district. There is no more important detail in management after planting *Spergula* than keeping it sedulously weeded, but that task need not alarm intending cultivators; it is a question of labour, and no more than is required in the formation of a turf; the time required will depend a good deal upon the thickness of the original planting. Very small turfs put close together will meet and close sooner than large turfs at greater distances, and some of the recorded objections to it may be traced directly to the fact that large turfs were laid down at greater distances apart, and the plant was a long time extending its procumbent stems between them. Yet reason ought to have dictated to those planters that it is only on the circumference that any such plant can spread, and minute divisions even to pieces of an inch in diameter would be preferable to the laying down of the largest turfs. As the edge of every separate turf will advance two inches in one season, turfs at four inches apart will form a close turf in one year, whereas the same quantity in large pieces a foot or so apart would be three or four years meeting, meanwhile the bare spaces between and the successive crops of weeds would bring upon the *Spergula* an obloquy which ought to be cast upon the planters for having dealt with it so injudiciously.

Plants to transplant 2 inches apart, for one acre, £10.

Ditto, for one rod, 7s. 6d.

Seed mixed with sand, sufficient to sow one acre, £2.

Ditto, for one rod, 1s. 6d..



## CARTER'S FLORAL ILLUSTRATIONS.

James Carter and Co. beg leave respectfully to announce that, under the above designation, they commenced issuing in the Spring of 1857 a series of Coloured Drawings (by Andrews), which will be continued with each *annual* publication of their Catalogues. It is their intention that each Plate shall contain the most *desirable novelties* of the season, together with any remarkable improvement in the varieties already in cultivation. One of the chief reasons for the publication of these Illustrations is, that they may serve as a guide to Amateurs and others in the selection of *good new Flowers* from among the great number sent out annually, many of which are often inferior to the older varieties.

The price of each Plate is affixed, and forwarded post-free on receipt of Postage Stamps to the amount; but should any Customers wish to become permanent Subscribers, if they will kindly write to that effect, the requisition shall be registered, and the Plates forwarded as issued.

### PLATE No. 1, published January 1857, price 1s. 6d.,

Contains—*Godefia rosco-alba*, *pure white*, *Lupinus pubescens elegans*, *Calliopsis coronata*, *Leptosiphon densiflorus albus*, *Obchiscaria pulcherrima*, *Alonsoa Warszewiczii*, *Linum grandiflorum verum kermesinum*, *Salpiglossis*, *new dark scarlet*, *Acroclinium roscum*, and *Violet Truffaut Aster*.

### PLATE No. 2, published January 1858, price 1s. 6d.,

Contains—*Nasturtium*, *new dwarf crimson*, *Lupinus hybridus insignis*, *Lupinus Menziesii*, *Clarkia pulchella marginata*, *Indian Pink*, *white marbled*, *Delphinium formosum*, *Oenothera Drummondii nana*, *Dwarf French Marigold*, and *New-white Rose Campion*.

### PLATE No. 3, published February 1858, price 1s. 6d.,

Contains—*Tropaeolum Lobbian*, *Caroline Schmidt*, *Carnations*, *perpetual or Tree*, *Carnations*, *prize varieties*, *Tacsonia ignea*, and *Ipomoea hederacea superba*.

### PLATE No. 4, published September 1858, price 1s. 6d.,

Contains—*Hyacinths*: *Panorama*, *double red*, *Blocksberg*, *double blue*, *Prince of Waterloo*, *double white*, *Fireball*, *single red*, *Charles Dickens*, *single blue*, and *Voltaire*, *single white*.

### PLATE No. 5, published January 1859, price 1s. 6d.,

Contains—*Gaillardia hybrida grandiflora*, *Oenothera bistorta Veitchii*, *New miniature striped Gourd*, *Lupinus Hartwegii eclostinus*, *Nolana paradoxa violacea*, *Dwarf spotted Nasturtions*, *Carter's Tom Thumb Nasturtions*, and *Fenzlia dianthiflora*.

### PLATE No. 6, published February 1859, price 1s. 6d.,

Contains—*Dwarf German Stock*, *Finest double Balsams*, *Marigold*, *orange French*, *Lupinus nanus albus*, *Cosmidium Burridgi*, *Lobelia formosa*, *Viscaria coeli-rosa alba*, and *Viscaria Dinnetti*.

### PLATE No. 7, published September 1859, price 1s. 6d.,

Contains—*Babiana villosa*, *Ixia crateroides*, *Gloxinia erceta*, *Helen of Orleans*, *Ixia maculata sulphurea*, *Ixia viridiflora*, *Ixia*, *var. Dolphin*, *Tydea*, *var. Auber*, *Achimenes*, *var. Leighii*, *Gloxinia*, *var. Madame Thibaut*, and *Iris pavonia*.

### PLATE No. 8, published January 1860, price 1s. 6d.,

Contains—*Dianthus chinensis Hedderwigi*, *Dianthus chinensis laciniatus*, *New Hybrid blue-edged Sweet Pea*, *Lobelia gracilis rosea*, *Callirhoe digitata*, *Nigella hispanica alba*, *Nigella hispanica atropurpurea*, *Clarkia pulchella* *var. integrifolia*.

### PLATE No. 9, published February 1860, price 1s. 6d.,

Contains—*Aster*, *La Superbe*, *Oenothera biennis* *var. hirsutissima*, *Datura chlorantha* *fl. pl.*, *New scarlet Scabious*, *Larkspur tricolor elegans*, *Lychnis Haageana*, *Spraguea umbellata*, and *Ipomoea limbata elegantissima*.

### DOUBLE-SIZED PLATE.

#### PLATE No. 10, just published, price 3s.

This Plate, which is double the size of the previous Numbers, contains drawings of some of the splendid varieties of French Seedling Gladiolus from Gandavensis: the specimens drawn are selected without reference to price, and may be taken as a fair average of these most beautiful flowers, which may be planted any time from November to April. The following are the names of the Gladioli figured:—

Brenchileycensis.	Rebecca.
Pégase.	Achille.
Osiris.	Madame Lesoble.

#### PLATE No. 11, published March 1861, price 1s. 6d.,

Contains—*Zinnia elegans*, *double-flowered*, *Linum grandiflorum*, *purple*, *Vernonia noveboracensis*, *Aquilegia caryophylloides* *fl. pl.*, *Convolvulus tricolor monstrosus*, *Hummelmannia funariifolia*, *Gilia achilleifolia alba*, and *Linaria bipartita splendida*.

#### PLATE No. 12, published December 1861, price 1s. 6d.,

Contains—*Oenothera Lamarckiana* and *Clarkia pulchella flore pleno*.

## Report, in the 'Gardeners' Chronicle' of September 28th, 1861, of James Carter and Co.'s Seed Farms.

### Garden Memoranda.

MESSRS. CARTER & CO.'S ANNUAL GROUNDS, DEDHAM AND ST. OSYTH, ESSEX.—Some account of what we saw on a recent visit to these interesting seed-producing establishments may perhaps not be unacceptable to our readers. Mr. Dunnett, one of the firm, who for many years has devoted the whole of his attention to the production and selection of flower and vegetable seeds on these grounds, showed us many of our most striking and favourite annuals, both old and new, not grown in small patches, but by the acre; and seen in masses of that extent, the different colours, arranged as they were in parallel beds, separated by broad belts of vegetables, were most effective. First came beds of very fine double Stocks in separate colours; then a collection of Marigolds, which exhibited ample evidence of the improvement effected in this description of flower by means of years of careful selection; the dwarf and yellow miniature French varieties were very double, and so compact in growth that they made excellent beds; African kinds were also beautiful, and nearly as large and double as ordinary-sized Dahlias. Attention was next directed to some charming beds of Senecio, among which the most striking was one of brilliant Magenta colour, literally one mass of bloom; others were bright crimson, rose, purple, copper, and white, and the profusion of flowers which each of them produced made them very effective, especially when viewed from a distance. Near these was a magnificent display of the various kinds of *Cnreopsis*, the most striking among which were *C. nigra speciosa*, rich deep crimson; *grandiflora*, gold with crimson centre; and *Burridgii*, the finest of all the tall kinds, brilliant golden yellow with large centre of rich maroon crimson. The dwarf sorts were also remarkably beautiful. Than *Mesembryanthemum tricolor* and *album* nothing could be handsomer; of these we noticed large beds, which, when the sun shone on them, were most effective. Of *Linum grandiflorum* (*rubrum*) there was a quarter at least half an acre in extent, and thus seen *en masse* nothing could be more dazzling, its masses of rich crimson blossoms being most abundant. No difficulty is experienced here in getting it to grow; the seeds receive no artificial preparation previous to sowing, which takes place in the open ground; and every one of them vegetates. Tom Thumb *Clarkia* also made a good bed, rich in colour, dwarf and compact. Among dwarf *Oenotheras*, *macrocarpa* still stood in the first rank; and among tall kinds *O. Lamarckii* occupies a similar position, it blooms the first year most profusely from June to October; individually the blossoms are of large size, averaging 4 inches in diameter. On one plant alone of this variety we counted no fewer than twenty-three flowers, all open at one time. *Saponaria calabrica*, a plantation two acres in extent, was in full bloom, and literally covered the ground with a dense carpet of rich rosy flowers. The finest sight, however, of all was the magnificent masses of *Tropaeolum Tom Thumb*, "scarlet," of which alone there was about an acre as red as a soldier's coat, and equally brilliant; next came one-third of an acre of "dark crimson," a fine kind of *Tropaeolum*, rich and beautiful in colour; also "Beauty," a yellow variety streaked and blotched with scarlet. Then came "Crystal Palace Gem," a new bright sulphur *Tropaeolum*, blotched with maroon; the habit of these is excellent, and the leaves much smaller than those of common *Nasturtium*, over which they have the advantage of throwing their blossoms well up above the foliage. Less striking perhaps, but not less interesting, was *Convolvulus tricolor splendens*, a great improvement, especially in point of colour, on the purplish blue *Convolvulus minor*. Of

*Tropaeolum Lobbianum* "Lillie Schmidt," a trailing variety resembling the Crystal Palace Scarlet, there was a fine mass profusely in bloom. For conservatory or greenhouse decoration, or for festooning over the sides of vases or hanging baskets, nothing could be more useful than this plant.

In the single *Chrysanthemum Burridgeanum* we have also a perfect gem; its large white blossoms, ornamented with concentric rings of various colours, are extremely handsome, and should secure it a place in every garden; the blooms also keep long in perfection placed in water in a cut state. *Eschscholtzia tenuifolia*, a charming miniature variety, with erect rush-like foliage, seemed admirably adapted for edgings; its colour is clear sulphur yellow, and its height not more than 4 inches. *Leptosiphon aureus* is another admirable edging plant, covered as it is for many weeks in succession with small stellate golden blossoms. Associated with these was a large bed of *Lobelia formosa*, an upright growing variety with rich purplish blue blossoms, somewhat resembling those of *L. speciosa* but larger. Contiguous to this was a bed of *Tropaeolum "Brilliant,"* a fine trailing variety with showy scarlet blossoms and dark green leaves, very distinct from those of other kinds. Passing large breadths of the showy *Delphinium formosum* and other varieties, *Gilia achilleaeifolia alba* next attracted attention; it has large heads of pure white bloom, and is a very pretty addition to our hardy annuals. Among Lupines, *hybridus insignis*, purplish rose; *L. venustus*, mazarine blue; *L. tricolor elegans*, purple, white, and violet; and *L. Dunnettii* superbus, red, blue, and yellow, are all about the same height, viz. 2 feet, and have long and beautiful spikes of bloom. Among Statice, plants of *S. texana*, a useful pink kind, measured from 1 to 2 feet in diameter. A large bed of *Convolvulus tricolor monstrosum*, with rich deep purplish blossoms 3 inches in diameter, was very conspicuous, as was also the double variety of *Clarkia pulchella*, a new and desirable plant for ornamental purposes of all kinds, the flowers being very double and the colour a rich Magenta; this received a First-class Certificate at a committee meeting of the Royal Agricultural Society. Among Malvaceous plants, one of the most showy was the Red Lavatera, a well-known and showy annual. *Petunias* were remarkably showy, and among them were one or two fac-similes of Mrs. Ferguson, the beautiful purple-striped white sort lately figured in the *Florist*. Other kinds were crimson, purple, rose, violet striped and white—all the best in their respective classes; and there was also a useful assortment of mixed varieties. *Lobelia gracilis erecta*, an extremely neat and pretty kind, well suited for edging, pots, or vases, was in fine condition; *Nemesia versicolor compacta*, one of the most charming annuals in cultivation, formed compact little bushes about one foot high, profusely covered with variously coloured blossoms.

Some very large beds of *Paeony Poppies* in twelve distinct colours were very showy; their blossoms, being large and brilliant in colour, produced a striking effect. A fine piece of purplish blue *Convolvulus minor* was likewise most beautiful, as was also a bed of Everlastings, consisting of *Helichrysum compositum*, *maximum*, *maeranthum nanum*, *bracteatum album*, *Aeroclinium roseum* and *album*. Associated with these was a mass of starry Scabious, the blossoms of which form an admirable addition to winter bouquets. Venus's Navelwort, on account of its silvery foliage, bids fair to make a good white edging. *Erysimum* or *Barbarea variegata*, with golden striped foliage, likewise makes a useful ornamental edging and riband plant. Near Mr. Dunnett's residence were some fine beds of mixed Sweet William, Indian Pinks, and the variety of *Dianthus* called Dunnett,



## *Report, in the 'Gardeners' Chronicle' of September 28th, 1861, of James Carter and Co.'s Seed Farms (continued).*

the darkest-coloured Sweet William known; also *Alyssum saxatile compactum*, a fine early blooming hardy perennial, which will form a good companion to the early white *Arabis alpina* and the pink *Saponaria ocyroides*. Among *Nigella*s or Love in a Mist, as they are sometimes called, was one pure white and another dark purple, both comparatively new kinds.

At St. Osyth, which is 13 miles from Dedham, were ten large beds of the new Stock-flowered Larkspur, in distinct colours, which made an effective display, all of them being very double, resembling in that respect, as well as in the size and beauty of their spikes, Brompton Stocks. Dwarf Rocket Larkspurs were also very pretty, as were likewise the branching and other sorts. *Antirrhinums* are grown here in quantity, and among them were at least twenty or thirty distinct varieties—some charmingly spotted, and others beautifully striped. To the raising of Pansies attention is also directed, and there were likewise immense breadths of Virginian Stock. Of Dunnett's selected dwarf crimson Candytuft, a very handsome sort, there were at least two acres, also large beds of *Lobelia speciosa*, the fine blue variety so universally employed for bedding-purposes. In addition to the above was a bed of *Rhodanthe Manglesii*, beautifully in bloom, and about an acre of the dwarf spotted Tom Thumb *Nasturtium*, golden yellow in colour, richly spotted with chocolate. *Dianthus Heddewigii*, a large bed of extra double Indian Pinks, a collection of eight varieties of Marvel of Peru, and a fine piece of mixed *Phlox Drummondii*, in every shade of colour, were very attractive. We likewise noticed here a

bed of *Leptosiphon hybridus*, a charming dwarf annual with a habit like that of *L. aureus*, but with colours more varied and beautiful; also a small bed of double *Zinnia* producing a fine display of flowers, some of which were remarkably handsome and as double as those of a miniature *Dahlia*, a description of plant now coming into fashion.

As has been already stated, large breadths of the finer varieties of vegetables separated the different kinds of flowers from one another; and among these a few are worthy of notice. First may be named Manchester Red, Ivery's Non-such, and Turner's Incomparable Celery; the last occupied about 4 acres, and is an excellent solid white variety, now generally grown, more especially for early crops. Not less than an acre was filled with Australian Cress, a good salad plant, and Veitch's Perfection Pea was also largely cultivated. This, as was remarked last week, endures drought better than most kinds. Of Oxheart Cabbage, an excellent sort, there were about 4 acres, and we also noticed a large quarter of Carter's Early Cabbage, a small, compact, and useful kind, which does not readily run to seed. Of Mammoth Late White Broccoli we observed about 2 acres; and of Lettuces there were some large and improved New Cos sorts, which when better known may become favourites. Of Beets Messrs. Carter have also an excellent medium-sized blood-red kind. Other vegetables are also grown extensively for seed; but these are among the most important. We may add that the utmost care appeared to be taken to keep everything true to name, and that neatness, order, and skilful management were everywhere observable.

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### MIXTURE OF FLOWER SEEDS FOR WOODLAND WALKS, SHRUBBERIES, &c.

Price per oz. 9d., per lb. 5s. 6d.

*Sow in March, April, May and June.*

It has often been a matter of remark that, until very recently, no endeavour has been made to impart an air of cheerfulness and gaiety to shrubberies, woodland walks, hedgebanks, railway embankments, natural roekeries, wildernesses, &c., by sowing a mixture of various flowering annuals to bloom at successive periods of the year; and a source of great enjoyment has been thereby neglected; we have therefore much pleasure in informing our correspondents that we now offer a first-rate, well-selected mixture of hardy flowers of every shade of colour for the above purpose, at the very reasonable price of 9d. per oz., or 5s. 6d. per lb., which we doubt not will induce many to avail themselves of the opportunity of greatly improving the appearance of their pleasure-grounds at a very trifling expense. The months of March and April may be considered the best for sowing; which may be done by simply scattering the seed broadcast without covering, at the rate of about 6 lbs. per acre: if it be desirable that the seeds should be sown later, the operation should be performed in showery weather.



1862.

# JAMES CARTER AND CO.'S GARDENER'S AND FARMER'S VADE-MECUM.

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